PCT/US02/14975 111

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<210> 262
<211> 594
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acttogacaa ataccaccca goctactttg ggaaagttgg tatgaagcat taccacttaa 180
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<212> DNA
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<212> DNA <213> Homo sapiens

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<222> 457, 471
<223> n = A,T,C or G
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agggtacgtg gtgtgcaaca cgaggcagaa cggaagctgg gggcccgagg agaggaagac 300
acacatgcct ttccagaagg ggatgccctt tgacctctgc ttcctggtgc agagctcaga 360
tttcaaggtg atggtgaacg ggatcctctt cgtgcagtac ttccaccgcg tgcccttcca 420
ccgtgtggac accatctccg tcaatggctc tgtgcanctg tcctacatca ncttccagac 480
ccagacagtc atccaca
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<210> 280
<211> 544
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 451
<223> n = A,T,C or G
<400> 280
gaatteggea ceagaatagg aacageteeg gtetacaget cecagegtga qegacgeaga 60
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gacagtgggc gcaggccagt gtgtgtgcgc accgtgcgcg agccgaagca gggcgaggca 180
ttgcctcacc tgggaagcac aaggggtcag ggagttccct ttccgagtca aagaaagggg 240
tgacggacgc acctggaaaa tcgggtcact cccacccgaa tattgtgctt ttcagaccgg 300
cttaagaaac ggcgcaccac gagactatat cccacacctg gctcagaggg tcctacgccc 360
acggaatete getgattget ageacageag tettagatea aactgeaagg ggggeaacga 420
ggctggggga ggggcgcccg ccattgccca ngcttgctta ggtaaacaaa gcagccggga 480
agettgaact gggtggagee caccacaget caaggaggee tgeetgeete tgtageteea 540
<210> 281
<211> 527
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 456
<223> n = A,T,C or G
<400> 281
gaatteggea egaggeeteg eteageteea acatggeaaa aateteeage eetacagaga 60
ctgagcggtg catcgagtcc ctgattgctg tcttccagaa gtatgctgga aaggatggtt 120
ataactacac tototocaag acagagttoo taagottoat gaatacagaa ctagotgoot 180
tcacaaagaa ccagaaggac cctggtgtcc ttgaccgcat gatgaagaaa ctggacacca 240
acagtgatgg tcagctagat ttctcagaat ttcttaatct gattggtggc ctagctatgg 300
cttgccatga ctccttcctc aaggctgtcc cttcccagaa gcggacctga ggaccccttg 360
geoctggeet teaaacceae eceettteet teeageettt etgteateat etceaeagee 420
cacccatccc ctgagcacac taaccacctc atgcanggcc cccctgccaa tagtaataaa 480
<210> 282
<211> 514
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 494
<223> n = A,T,C or G
<400> 282
ggaagactgg agcetttgcg gcggcgctgc ccctcccctg gtccccgcga gctcggaggg 60
cccggctggt gctgcggggg ccccgggagg ttgaaaacta agcatgggga agagctgcaa 120
ggtggtcgtg tgtggccagg cgtctgtggg caaaacttca atcctggagc agcttctgta 180
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cattgagaca gaccgggggg tgcgagagca ggtgcgtttc tatgacaccc gggggctccg 300
agatggggcc gaactgcccc gacactgctt ctcttgcact gatggctacg tcctggtcta 360
tagcacagat agcagagagt cttttcagcg tgtggagctg ctcaagaagg agattgacaa 420
atccaaggac aagaaggagg tcaccatcgt ggtccttggc aacaagtgtg acttacagga 480
gcagcggcgt gtanacccaa atgtggctca acac
<210> 283
<211> 484
<212> DNA
<213> Homo sapiens
<400> 283
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ggaccgcgcc gggaagagca cgcagagccg caagctggtg gaagcgctgt gcgccgcggg 120
ccaccgcgcc gaactgctcc ggttcccgga aagatcaact gaaatcggca aacttctgag 180
ttcctacttg caaaagaaaa gtgacgtgga ggatcactcg gtgcacctgc ttttttctgc 240
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cgtggacaga tacgcatttt ctggtgtggc cttcaccggt gccaaggaga atttttccct 360
agactggtgt aaacagccag acgtgggcct tcccaaaccc gacctggtcc tgttcctcca 420
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<210> 284
<211> 514
<212> DNA
<213> Homo sapiens
<400> 284
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tggaaacagc agaggacatc caggagaggc ggcagcaggt cctagaccga taccaccgct 180
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ttcaaagaga tgctgaagag ctggagaaat ggatacagga aaaacttcag attgcatctg 300
atgagaatta taaagaccca accaacttgc agggaaagct tcagaagcat caagcatttg 360
aagctgaagt gcaggccaac tcaggagcca ttgttaagct ggatgaaact ggaaacctga 420
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gccagtggga attacttttg gagaagatgc gaga
                                                                   514
<210> 285
<211> 383
<212> DNA
<213> Homo sapiens
<400> 285
gaatteggea egaggeeggg etecacegeg cateetgete cactetggeg acegeeeeeg 60
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gcgagcggcc ggtgcagttc gagaaggcga accctgtcaa ctgcgtcttc ttcgatgagg 180
ccaacaagca ggtttttgct gttcgatctg gtggagctac tggcgtggta gttaaaggcc 240
cagatgatag gaatcccatc tcatttagaa tggatgacaa aggagaagtg aagtgcatta 300
agttttcctt agaaaataag atattggctg ttcagaggac ctcaaagact gtggattttt 360
gtaattttat ccctgataat tcc
<210> 286
<211> 943
<212> DNA
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<213> Homo sapiens

```
<400> 286
gaattoggca ccagggccgt ggcggaggag gagcgctgca cggtggagcg tcgggccgac 60
ctcacctacg cggagttcgt gcagcagtac gtgcgccct gatcgcggag gtcgcqtcct 120
gttcaccggc ccgtctgccc cgaccgccca aggccgcctt cccctgacct cgcgcgcacg 180
cgtqqqqctq qqqcqqcqaq qctqqcqqtc cqqcctqqcc qcqactctqc ccttctttcc 240
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tccggctgag caccgccaac acctactcct accacaaagt ggacttgccc ttccaggagt 360
atgtggagca getgetgeae ecceaggace ecaceteeet gggcaatggt gaggeaqeee 420
taggcggcgg tagggggtgg ggacgcttgg agtctccagg tgccaggatc cctgtccccg 480
ccgtctctgt tggcagacac cctgtacttc ttcggggaca acaacttcac cgagtggqcc 540
tototottto ggcactacto cocacoccca tttggcctgc tgggaaccgc tccagcttac 600
agotttggaa togcaggago tqqctogggq qtqcccttcc actqqcatqq acccqqqtac 660
tcagaagtga tctacggtcg taagcgctgg ttcctttacc cacctgagaa gacgccagag 720
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tetgcaegge ceetggagtg taccateegg getggtgagg tgetgtaett eeeegaeege 840
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ccaaaacagc tggcaggact gccggtcaca caccagcacg tcc
                                                                  943
<210> 287
<211> 1143
<212> DNA
<213> Homo sapiens
<400> 287
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gaagatqaac aggagagqcc cttqqccctc tqtqaaccaq qtqtcaatcc cqaqqaacaa 180
ctgattataa tccaaagtcg tctggatcag agtatggagg agaatcagga cttaaagaag 240
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cagagattga ctcagcagga cacatctgtt cttcagctca aacaagagct actgagggca 360
aatatqqaca aaqatqaqct qcacaaccaq aatqtqqatc tqcaqaqqaa qctaqatqaq 420
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gttegagatg cteteegeag cetgegeaac agetteagtg gecaegatee teageaceae 780
actattgaca gettggagea gggeatttet ageeteatgg agegeetgea tgttatqgag 840
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gag
<210> 288
<211> 881
<212> DNA
<213> Homo sapiens
<400> 288
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gggctggtgg gaacagccgc ccgaaggaaq caccatgatt tcggccgcgc agttqttqga 120
tgagttaatg ggccgggacc gaaacctagc cccggacgag aagcgcagca acgtgcggtg 180
ggaccacgag agcgtttgta aatattatct ctgtggtttt tgtcctgcgg aattgttcac 240
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gtatgagaag agctctcgtt tcatgaaagt tggctatgag agagattttt tgcgatactt 360
acagagetta ettgeagaag tagaaegtag gateagaega ggeeatgete gtttggeatt 420
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```
atctcaaaac cagcagtctt ctggggccgc tggcccaaca ggcaaaaatg aagaaaaat 480
tcaggttcta acagacaaaa ttgatgtact tctgcaacag attgaagaat tagggtctga 540
aggaaaagta gaagaagccc aggggatgat gaaattagtt gagcaattaa aagaagagag 600
agaactgcta aggtccacaa cgtcgacaat tgaaagcttt gctgcacaag aaaaacaaat 660
ggaagtttgt gaagtatgtg gagccttttt aatagtagga gatgcccagt cccqqqtaga 720
tgaccatttg atgggaaaac aacacatggg ctatgccaaa attaaagcta ctgtagaaga 780
attaaaagaa aagttaagga aaagaaccga agaacctgat cgtgatgagc qtctaaaaaa 840
ggagaaqcaa qaaaqaqaaa aaaaaaaaaa aaaaactcqa q
<210> 289
<211> 987
<212> DNA
<213> Homo sapiens
<400> 289
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catttggact tgggctggg caggggctgg tgttgggcaa agctggggt ccaggctgga 180
gaagcagggg cccctccaga cgcaqccttq qqaqactcaq catqtqccc cctccctca 240
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ctacgtctgg agctgagggg acagggggag ctgagaacaa agagaggaaa qaggagaaaa 420
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tettggtgtc ggtggcgcac gtgaagtgcg tgtagatete ettggtgtet ttgcgettat 660
tcaggtcctc aaacttactc tggatgtagc tggctgcctc atcatatttg ttggccctg 720
tatactcagg gaagcagatg gtcaggggac tgtgtgtgat cttctcctca aacaggtcct 780
tcttgttgag gaagaggatg atggacgtgt ctgtgaacca cttgttgttg cagatgctat 840
cgaatagett catgetetea tgcatgeggt teateteete gteeteaget ageaceaagt 900
cataggogot caaggotacg cagaagatga tggctgtgac gccctcaaag cagtggatcc 960
acttettecg etcagacege tgaccac
                                                                  987
<210> 290
<211> 300
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 233, 247
<223> n = A.T.C or G
<400> 290
gattcaagat gtaccccatt gactttgaga aggatgatga cagcaacttt catatggatt 60
tcatcgtggc tgcatccaac ctccqqqcaq aaaactatga cattccttct gcagaccggc 120
acaaqaqcaa qctqattqca qqqaaqatca tcccaqccat tqccacqacc acaqcaqccq 180
tggttggcct tgtgtgtctg gagctgtaca aggttgtgca ggggcaccga cancttgact 240
cctacangaa tgggtgcctc aacttgagcc ctgcctttct ttggtttctc tgaacccctt 300
<210> 291
<211> 352
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
```

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<222> 248, 257, 275, 295, 306, 337
<223> n = A.T.C or G
<400> 291
aaccaagctg ccaccggggg tggatcggat gcggcttgag aggcatctgt ctgccgagga 60
cttctcaagg gtatttgcca tgtcccctga agagtttggc aagctggctc tgtggaagcg 120
gaatgagete aagaagaagg cetetetett etgatggeec ceacetgete egggaeggee 180
cccttacccc tgctgcttca gggtttttcc ccggcgggtt gggaggggca ggaggtgggg 240
tggaaatngg gtgggeneet tteeteaggt agagnggggg gceaaaacet etgengteee 300
cggagngage tatggacttt cttccccctc acaaggntgg gggcctcctg ct
<210> 292
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 19, 353, 415, 431, 474
<223> n = A,T,C or G
<400> 292
egeggtaget acquaetena ectaaqaaac tegqcaaqeq eqeaqtateq acteceeqat 60
ctatgccagg cgcatctcag ctaatccaaa agtaaatgag aaacttagaa aaagattgcc 120
aattocaaat caacatattt agagaaaatt ggaaaaggag aagottacta cagotttatt 180
tgaggacttt ttaaagaacg ctgggttcta tctgtgagct gcaaatcttg gagcaaaaac 240
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aaataacatg ngagaacaca gaatggccaq qqqcaqaqat caacqaattt tcanatcatc 480
agttettate cagatgatga gtetgtttae t
                                                                  511
<210> 293
<211> 526
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 125, 249, 264, 282, 291, 381, 399, 488
<223> n = A,T,C or G
<400> 293
gataaaaaga actttaatgg aaggcactgt tgtccaaaat cacataaagg gtaagagccc 60
acacggtace accetgetet cetacttete aaacccacat ccaccacca qacaggaggg 120
tgcanacccc acaggaaatt acctcccgga gcactgactg atatttttcc ttaaaacaaa 180
aaaatqqctg tctcagacta ataacagaac atcttaagag ctataccagc tattacagcc 240
tggtaatana agcagctttc taanaattcc caagtttata anaggcccaa naaatgcatt 300
tattetgttg tetattaage etceatgaca aggagaaagt tatgagtaaa teettggtte 360
atcaggagtt aagagctgtg ngcctcatga ggagttaana gctgtgtgca taagcaggtt 420
caagaaacaa actcctgttt gtttqcctct ttqatqqttc aaaaacattc agctgctttc 480
acctctanga caaaatgctt aaagaattta ctctcatcac cttqqq
<210> 294
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<211> 601 <212> DNA <213> Homo sapiens

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<220>
<221> misc feature
<222> 55, 285, 489, 519, 582, 590
<223> n = A,T,C or G
<400> 294
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atcattgttt tcaagtgaag gtttctgtca gttgaagtag ttagcaatgg cttcttttct 240
cccqtqtcca aaqcaqqctc ttcctqcqct qacttctqaq qaqqnqttca qtcctctqcc 300
atgtataggc gatacatcaa ggcgacggcc actgcagaga tggcagggat cacccagttg 360
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totgtagant goodgacato otdaaagtto toagtageng teacotogac ttgttccctt 540
aaaacttott coccaccagg atgotottoc agaaatttgg qncaaatcgn acacettgtg 600
<210> 295
<211> 262
<212> DNA
<213> Homo sapiens
<400> 295
cccttagccc caagggccct gggggcagcc accctcccgc ctgtcggccc gtagatttat 60
caagggtgtt atgggcccag ctttgggggg ccagtcccga tgcactttga ggggtgttgg 120
agaggggact cccccactcg cacttaactc aacggctctc gggccctggg gctgttttta 180
ccatgtttgt ttttgaagct caggtgtctc acgtctgggc tgcaccaggc gaagagagaa 240
attaaagatt tgaggttttt cc
                                                                  262
<210> 296
<211> 598
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 262, 296, 329, 360, 530, 534, 536, 568, 593, 595
<223> n = A.T.C or G
<400> 296
gttagaacaa ctcagcaaaa taaaattcct gtttattgtt ggacaacatt gtttcacaca 60
tacatcaaac aggccaaaaa aaataaacag caacttcata gacaaaaaaa gaaaaaaaaa 120
gaaacctttt atctttggcc tttttaacca tctcatacaa accaactact tatagtacag 180
ctaagtacat acacaaaaaa gttactggaa tgctcggaat aagattgttt ttctgttgtc 240
atttttqctt tttttacaag gntttttttc tcctttqaqa ttataatqaa catqqncaca 300
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atcattaaaa atqqctqacc ctaacaatat qtacaaaaat ataaaatqta aataaaaaat 420
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qttctttttt cctccctgt tgcaaattet catggtttgg gttgggtggn gganancccg 540
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<210> 297
<211> 509
<212> DNA
<213> Homo sapiens
<400> 297
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PCT/US02/14975

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atctataaat gcggtggcat cgacaaaaga accattgaaa aatttgagaa ggaggctgct 180
gagatgggaa agggctcctt caagtatgcc tgggtcttgg ataaactgaa agctgagcgt 240
gaacgtggta tcaccattga tatctccttg tggaaatttg agaccagcaa gtactatqtg 300
actatcattg atgccccagg acacagagac tttatcaaaa acatgattac agggacatct 360
caggotgact gtgctgtcct gattgttgct gctggtgttg gtgaatttga agctggtatc 420
tecaagaatg ggcaggaece gagageatge cettetgget tacacactgg gtgtgaaaca 480
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<210> 298
<211> 267
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 105, 108, 136, 148, 149, 237, 243, 250
<223> n = A,T,C or G
<400> 298
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tgatagcgga ggcggnggca cctccttnna ggaggacctg gactctgtgg ctccgcgatc 180
egecceaget ggggcetegg ageegectee geegggaggg gteggtetgg ggateeneae 240
cgngaggctn tttggggagg gcqqqcc
                                                                   267
<210> 299
<211> 121
<212> DNA
<213> Homo sapiens
<400> 299
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tagtctatgg gatggggcgg cggagggaat tttttgagaa ataaaatgaa gctgcagtgt 120
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<210> 300
<211> 533
<212> DNA
<213> Homo sapiens
<400> 300
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qtctggatat atctcatctt caaqqacaaq aaqaattatt qtcatcacaa qaqaaatctc 240
ctggcaccaa ggatgtggta gtaagtgtgg aatatagtaa aaagtccgat ttagatactt 300
ccaaaccact cagtgaaaaa ccaattacac acaaagttga ggaagaggat ggcaagactg 360
caactcaacc actgttgaaa aaagaatcca aaggccctat tgtgccttta aatgtagctg 420
accaaaaqct tcttqaaqct aqtacacagt ttcagaaaaa acaaggaaag aatactattg 480
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<210> 301
<211> 560
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> 227, 324, 343, 351, 408, 412, 431, 453, 502, 516, 544
<223> n = A,T,C or G
<400> 301
ataaatqatc ccttttattq taaqtaatqc qcaacactqq cctqqctttq cactqcaaqc 60
cctcggtcaa gatatagtca aataactatg gctgcaggtt ccacagttcc acaataacca 120
tggctgcacg atccacaatt cagacacaga catagagctg gggtgggtgg aaggggcagg 180
agggtggcag agtgcggact gtccccagcc ctggcctctc catgcanagt tggcccaqgc 240
gggctgccag gaactgccct tcanaacctt tgggcccagg tcnccctgaa nccccacaac 360
tttttatctg gaataagtat taaaaaacaa taaattaagc aaacaacntg gnccttgaag 420
gatgttgacc nacatggtcc acagtttttg qcncaaaaaa ataagggctg qtttqctttt 480
tttggaaggc agggtttgtg gnttggcttt caaatnattt tcaaaccatt ccccagggag 540
gganaacccc cgggggggaa
<210> 302
<211> 599
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 51, 157, 240, 258, 304, 316, 378, 391, 475, 576, 580
<223> n = A,T,C or G
<400> 302
gcaaagttac aaatttattg gtctggaaat aaatacaaat atctcattaa naaactcctc 60
tggaaagact tgtgcacaat agtttcccat ccgtactcag cctctcttgc cccgatcccc 120
gacttttcta ctcaaggcca gggaaggcct ccaaggngat gggcgcagg taacgagtca 180
ttgcctctca cgccacctgg aaggctggac tacttcctcc tcccaactgc ggggtcccan 240
aaatcotcgg gtcccagngg ctgacttaca atattcaatt cactctgacc aaacttccta 300
tganaaaatc cacggngagc caaaatgaaa agtacaaggc agtagtacag gaacctggca 360
gccgcactgg ccgcccanaa acqtcagtgg ngctgcccca ttcggcgaaa ggttagggag 420
caggaaaaga ggaagcagga gagggaagga aagtcccatg gaatatgtat tccanaatcc 480
ttacattttc tcagccaccg ctccccacgt gagttcccac ccccaccccg acaagaagca 540
aagagttetg aggatecaag aacgtgaceg ggteanacan gtteagetae tgagtteae 599
<210> 303
<211> 591
<212> DNA
<213> Homo sapiens
<400> 303
cggaqttqta acgctccact gactgataga gcgaccqqcc gaccatggcg cccqgaqtqq 60
cccgcqqqcc gacgccgtac tggaggttgc gcctcggtgg cgccgcgctg ctcctgctgc 120
tcatcccqqt qqccqccqcg caggagcctc ccqqaqctqc ttqttctcaq aacacaaaca 180
aaacctgtga agagtgcctg aagaacgtct cctgtctttg gtgcaacact aacaaggctt 240
gtotggacta cocagttaca agogtottgo cacoggotto cotttgtaaa ttgagototg 300
cacgctgggg agtttgttgg gtgaactttg aggcgctgat catcaccatg tcggtagtcg 360
ggggaaccct cctcctgggc attgccatct gctgctgctg ctgctgcagg aggaagaga 420
gccggaagcc ggacaggagt gaggagaagg ccatgcgtga gcgggaggag aggcggatac 480
qqcaqqaqga acqqaqaqca qaqatqaaqa caaqacatqa tqaaatcaqa aaaaaatatq 540
gcctgtttaa agaagaaaac ccgtatgcta gatttgaaaa caactaaagc g
<210> 304
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<211> 441

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<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 411
<223> n = A,T,C or G
<400> 304
gctggacgga gacctgctgg aggaggagga gctggaggaa gcagaggagg aggaccggtc 60
gtcgctgctg ctgctgtcgc cgcccgcggc caccgcctct cagacccagc agatcccagg 120
eggqteetq qqqtetqtqc tqctqccaqc cqccaqqttc qatqcccqqq aqqcqqcqqc 180
ggcggcgggg gtgctgtacq qaggggacga tgcccagggc atgatggcgg cgatgctqtc 240
ccacgcctac ggccccggcg gttgtggggc ggcggcggcc gccctgaacg gggagcaggc 300
ggccctgctc cggagaaaga gcgtcaacac caccgagtqc gtcccggtgc ccagctccga 360
qcacqtcqcc qaqatcqtcq qccqccaqqq ttqtaaaatt aaaqcactqa naqccaaqac 420
aaacacgtat atcaagactc c
                                                                  441
<210> 305
<211> 491
<212> DNA
<213> Homo sapiens
<400> 305
togccatgcc cccttcttag cactgcaccg ccaggtccat gctgctgcca ccccagacct 60
gggctttgcc tgccacctct qtgggcagag cttccqaqqc tqggtqqccc tqqttctqca 120
totgogggcc cattoagctg caaagcggcc catcgcttgt cccaaatgcg agagacgctt 180
ctggcgacga aagcagette qageteatet geggeggtge cacceteeeg eeeeggagge 240
ccggcccttc atatgcggca actgtggccg gagctttgcc cagtgggacc agctagttgc 300
ccacaagogg gtqcacgtaq ctqaqqcct qqaqqaqqcc qcaqccaaqq ctctqqqqcc 360
coggectagg ggccgcccg cggtgaccgc cccccggccc ggtggagatg ccgtcgaccg 420
cccttccag tgtgcctgtt gtggcaagcg cttccggcac aagcccaact tgatcgctca 480
cccqcqcqtq c
                                                                  491
<210> 306
<211> 547
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 502
<223> n = A,T,C or G
<400> 306
tototttott ttaagacagg aatgtaagcc acaacattta caaatacaat gttttaactc 60
totacatgta qqaaqccaac ctqctccttt ttqatcttct tctttqqcac aacctcaqtq 120
gatttctctg attcagaacg agttctaatt gatcttctct gttgcttctt ttctactgag 180
cctgtagaac cagatgttgc ttcaggagat gatacactct gcgttggctt ttcattctc 240
tggtttggtg tagaaattat aaqcctqtct tqccccctga cacttatttc tgttttgtta 300
ccaattcct ttgttgaata aacaaattga tcgataaatt tcccatcccc tgtagcattc 360
tgaagagcaa acacttgttc aattttcaca actggagaca tgttacactt ctgcaaatcc 420
aggeteeett tgtgeateeg taatggaage tggtaaggat tteettgetg eegeagtttt 480
ccaggetatt ttaacaggeg gnggetette etettteege acttgtgtge egeetetgge 540
tatgtct
```

<210> 307 <211> 571

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<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 51, 103, 245, 407, 448
<223> n = A,T,C or G
<400> 307
cgctgcatgt gataatgtca tcatttattt ttaaatggtt ctaaattgca natttaagtt 60
gatttcaaat caaccctatt tttaaattac ttttaatagg aanaaatgaa gcaaggacat 120
acataatcta ctatatttga aggactcaaa caaatacatg tttggctgtg aattctgtac 180
totcaccaaa acagagataa aaatccacct aaaatacact ttoottoatt tagtgottqt 240
ggganaaggt caagtattgc actttaaaat tactttcatc taacatttgc cccaactttc 300
cccctgaatt cactatatgt tttcagcaaa catgatttta taaattttaa gtataaaagc 360
aactaggttt totaattoaa otttggaagg tttactttac totacanago tatttttgta 420
aaacggcata tttacttaca aaattganag ataggggcat ccagctgagg tacatttcct 480
cccttqqcqt tqaqtttctq qacttgggtc gggggcacaq gcttgtgtga ctgcccgtg 540
gcccgataca tggcctggac cccaggatgc g
                                                                  571
<210> 308
<211> 591
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 576
<223> n = A,T,C or G
<400> 308
ctccttatgt gtctgcctac ttcattcttc ggcatttcct gcttatccaa gttcaccatt 60
toaggtcacc actggatatc agttgcctgt atataattat caggcatttc ctgcttatcc 120
aagttcacca tttcaggtca ccactggata tcagttgcct gtatataatt atcaggcatt 180
toctgottat ccaagttcac catttcaggt caccactgga tatcagttgc ctgtatataa 240
ttatcaggca tttcctgctt atccaagttc accatttcag gtcaccactg gatatcagtt 300
quetquatat aattateagg cattlectge ttatecaagt teaccattle aggteaceae 360
tggatatcag ttgcctgtat ataattatca qqcatttcct qcttatccaa qttcaccatt 420
toaggtcacc actggatate agttgcctgt atataattat caggcatttc ctgcttatcc 480
aaattcagca gttcaggtca ccactggata tcagttccat gtatacaatt accagatgcc 540
accqcaqtqc cctqttqqqq qaqcaaaqqa qaaatntqtq qaccqaaqca t
                                                                  591
<210> 309
<211> 591
<212> DNA
<213> Homo sapiens
<400> 309
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cccctcgcga tggcgggcat cctgtttgag gatattttcg atgtgaagga tattgacccg 120
gagggcaaga agtttgaccg aggtaagtaa gtgtctcgac tgcattgtga gagtgaatct 180
ttcaagatgg atctaatctt agatgtaaac attcaaattt accctgtaga cttgggtgac 240
augttteggt tggteatage tagtacettq tatqaaqatq qtaccetqga tgatqqtqaa 300
tacaacccca ctgatgatag gccttccagg gctgaccagt ttgagtatgt aatgtatgga 360
aaagtgtaca ggattgaggg agatgaaact tctactgaag cagcaacacg cctgctgaga 420
ttgagagetg ctgagtggca gtgctccaga atcacgggat ggggccttct gtttcagetc 480
tgcgtacgtg tcctatgggg gcctgctcat qaggctgcaq ggggatgcca acaacctgca 540
tggattcgag gtggactcca gagtttatct cctgatgaag aagctagcct t
                                                                  591
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<210> 310
<211> 488
<212> DNA
<213> Homo sapiens
<400> 310
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ggcttcagtc aattgtcttg agactgtgaa gaggctgaaa gacaccttcc cgggtggaag 120
aaqqaqttca ctgaaaactt atcttaaact gacccttccc tttgagtgag tcttcattcc 180
teteccatgt gggaacccag cetecgatge eeeggggact aggggaaaca gttggaggte 240
cgtgccgtcc ccagcctgcc acgggtgcga ggacagccaa gtcctgagtg actcaagatg 300
cttcacttac atggaagaaa cttctaaaac tctaccgagt ggtttttgta tatactaaag 360
ttctatttag agcttttctg ttttgggcaa gttcgctgct ccttctattt gggcactttg 420
gtttttgtac tgtcttttgt gacggcattg attgaacatt ttttactagt agtcttatga 480
cttttgta
<210> 311
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 8, 11, 19
<223> n = A.T.C or G
<400> 311
cccgtttntg nagcaaaana gggggaagat ttataggtag aggcgacaaa cctaccgagc 60
ctggtgatag ctggttgtcc aagatagaat cttagttcaa ctttaaattt gcccacagaa 120
ccctctaaat ccccttgtaa atttaactgt tagtccaaag aggaacagct ctttggacac 180
taggaaaaaa ccttgtagag agagtaaaaa atttaacacc catagtaggc ctaaaagcag 240
ccaccaatta agaaagcgtt caagctcaac acccactacc taaaaaatcc caaacatata 300
actgaactcc tcacacccaa ttggaccaat ctatcaccct atagaagaac taatgttagt 360
ataagtaaca tgaaaacatt ctcctccgca taagcctgcg tcagattaaa acactgaact 420
gacaattaac agcccaatat ctacaatcaa ccaacaagtc attattaccc tcactgtcaa 480
cccaacacag gcatgctcat aaggaaaggt t
<210> 312
<211> 591
<212> DNA
<213> Homo sapiens
<400> 312
gaacttgcgt tgaaggaagc agaaactgat gaaataaaaa ttttgctgga agaaagcaga 60
gcccagcaga aggagacctt gaaatctctt cttgaacaag agacagaaaa tttgagaaca 120
gaaattagta aactcaacca aaagattcag gataataatg aaaattatca ggtgggctta 180
gcagagctaa gaactttaat gacaattgaa aaagatcagt gtatttccga gttaattagt 240
agacatgaag aagaatctaa tatacttaaa gotgaattaa acaaagtaac atotttgcat 300
aaccaagcat ttgaaataga aaaaaaccta aaagaacaaa taattgaact gcagagtaaa 360
ttggattcag aattgagtgc tcttgaaaga caaaaagatg aaaaaattac ccaacaagaa 420
gagaaatacg aagctattat ccagaacctt gagaaagaca gacaaaaatt ggtcagcagc 480
caqqaqcaag acagagaaca qttaattcag aagcttaatt gtgaaaaaga tgaagctatt 540
cagactgccc taaaagaatt taaattggag agagaagttg ttgagaaaga g
                                                                  591
<210> 313
<211> 373
<212> DNA
```

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<213> Homo sapiens
<220>
<221> misc feature
<222> 16, 34, 44, 46, 68, 70, 76, 84, 92, 96, 99, 104, 170, 212,
235, 240, 249, 287, 296, 298, 304, 308, 334, 337, 339, 344,
348, 370, 373
<223> n = A,T,C or G
<400> 313
ttgattttta ttctgnattt tattactgaa atangttgtc ctantnatcc caccccacaa 60
taaaaatntn acccangeee ccenttett tnectnatne cetntteeae cacaccatee 120
cqqaacaaqt qctccaggat tccctgccca ctggccattt tggagtgtgn ccattgggta 180
gcaatgtgga aaccaccaag gcctttgtgg anaaaatgga gggggttgag ggagncccan 240
gaggggctna tttgagggcc tttgccactt gctcataggc gagctcnatc tcctcntnat 300
ctgnacangt ggaagcaaat tottcccggg cgtnggnant gctnaagnac cgatgcactc 360
cccggaaggn ctn
<210> 314
<211> 591
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 569
<223> n = A,T,C or G
<400> 314
cccgtgccgc cgccgcctcc tgggaaqaqa qgaaqcqqqa qagqaqccca cqtcqcctqt 60
cacccaatat ctccaqccqc qcaqtcccqa aqaqtqtaaq atqttcqcct qcqccaaqct 120
cgcctgcacc ccctctctga tccgagctgg atccagagtt qcatacagac caatttctqc 180
atcagtgtta tctcgaccag aggctagtag gactggagag ggctctacgg tatttaatgg 240
ggcccagaat ggtgtgtctc agctaatcca aagggaqttt caqaccagtg caatcagcag 300
agacattgat actgctgcca aatttattgg tgcaggtgct gcaacagtag gagtggctgg 360
ttctggtgct ggtattggaa cagtctttgg cagccttatc attggttatg ccagaaaccc 420
ttcgctgaag cagcagctgt tctcatatgc tatcctggga tttgccttgt ctgaagctat 480
gggtctcttt tgtttgatgg ttgctttctt qattttqttt gccatqtaac aaattactgc 540
ttgacatgtt ggcattcata ttaattacng atgtaattct gtgtatctta c
<210> 315
<211> 591
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 553
<223> n = A,T,C or G
<400> 315
aagcccttca ccaacaaaga tgcctatact tgtgcaaatt gcagtgcttt tgtccacaaa 60
qqctqccqaq aaagtctagc ctcctqtqca aaqqtcaaaa tgaaqcaqcc caaaqqqaqc 120
cttcaggcac atgacacatc atcactgccc acggtcatta tgagaaacaa qccctcacag 180
cccaaggagc gtcctcggtc cgcagtcctc ctggtggatg aaaccgctac caccccaata 240
tttgccaata gacgatccca gcagagtgtc tcgctctcca aaagtgtctc catacagaac 300
attactggag ttggcaatga tgagaacatg tcaaacacct ggaaattcct gtctcattca 360
acagactcac taaataaaat cagcaaggtc aatgagtcaa cagaatcact tactgatgag 420
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ggtacagaca tgaatgaagg acaactactg ggagactttg agattgagtc caaacagctg 480
qaaqcaqagt cttqqaqtcq qataataqac aqcaaqtttc taaaacaqcc aaaaqaaaqa 540
tgtgggtcaa acngcgagaa gtaatatatg agttggatgc agacagagtt t
<210> 316
<211> 591
<212> DNA
<213> Homo sapiens
<400> 316
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gtaaatggaa aggagattat qaaaaactgg agcacaacca cacttacatt caatggcttt 120
tccccctgag agaacaaggc ttgaacttct atgccaaaga actaactaca tatgaaattg 180
aggaattcaa aaaaacaaaa qaagcaatta qaagattcct cctggcttat aaaatgatqc 240
tagaattttt tggaataaaa ctgactgata aaactggaaa tgttgctcgg gctgttaact 300
ggcaggaaag atttcagcat ctgaatgagt cccagcacaa ctatttaaga atcactcgta 360
ttottaaaag cottggtgag ottggatatg aaagttttaa atotootott gtaaaattta 420
ttetteatga agetettgtg gagaataeta tteecaatat taageagagt getetagagt 480
attttgttta tacaattaga gacagaagag aaaggagaaa gctcctgcgg ttcgcccaga 540
aacactacac gccttcagag aactttatct ggggacccgc ctcgaaaaga a
<210> 317
<211> 323
<212> DNA
<213> Homo sapiens
<400> 317
ccaagctacg gaagcaagtg gaagagattt ttaatttgaa atttgctcaa gctcttggac 60
tcaccgaggc agtaaaagta ccatatcctg tgtttgaatc aaaccggag ttcttctatg 120
tggaaggett gecagagggg attecettee gaageeetae etggtttgga attecaegae 180
ttgaaaggat cgtccacggg agtaataaaa tcaagttcgt tgttaaaaaa cctgaactag 240
ttatttccta cttgcctcct gggatggcta gtaaaataaa cactaaagct ttgcagtccc 300
                                                                  323
ccaaaaqacc acqaaqtcct qqq
<210> 318
<211> 591
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 538, 590
<223> n = A.T.C or G
<400> 318
gatggegtac ttggcttgga gactggcgcg gcgttcgtgt ccgagttctc tgcaggtcac 60
tagtttcccg qtagttcagc tqcacatgaa tagaacagca atgagagcca gtcagaagga 120
Ctttgaaaat tcaatgaatc aagtgaaact cttgaaaaag gatccaggaa acgaagtgaa 180
gctaaaactc tacgcgctat ataagcaggc cactgaagga ccttgtaaca tgcccaaacc 240
aggtgtattt gacttgatca acaaggccaa atgggacgca tggaatgccc ttggcagcct 300
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ggaatcctct agtcaggtgg agcctggaac agacaggaaa tcaactgggt ttgaaactct 420
ggtggtgacc tccgaagatg gcatcacaaa gatcatgttc aaccggccca aaaagaaaaa 480
tgccataaac actgagatgt atcatgaaat tatgcgtgca cttaaagctg ccagcaanga 540
tgactcaatc atcacttgtt ttaacaggaa atggtgacta ttacagtagn g
<210> 319
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<211> 591

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<212> DNA
<213> Homo sapiens
<400> 319
qaatteggea egagqttget qetaagegaa egecetttgg agettaegga ggeettetga 60
aagacttcac tgctactgac ttgtctgaat ttgctgccaa ggctgccttg tctgctgqca 120
aagteteace tgaaacagtt gacagtgtga ttatgggcaa tgteetgcag agttetteag 180
atgctatata tttggcaagg catgttggtt tgcgtgtggg aatcccaaag gagaccccag 240
ctctcacqat taataqqctc tqtqqttctq qttttcaqtc cattqtqaat qqatqtcaqq 300
aaatttgtgt taaagaagct gaagttgttt tatgtggagg aaccgaaagc atgagccaag 360
ctccctactg tgtcagaaat gtgcgttttg gaaccaagct tggatcagat atcaagctgg 420
aagattettt atgggtatea ttaacagate agcatgteea geteeccatg geaatgaetg 480
cagagaatct tgctgtaaaa cacaaaataa gcagagaaga atgtgacaaa tatgccctgc 540
agtcacagca gagatggaaa gctgctaatg atgctggcta ctttaatgat g
<210> 320
<211> 591
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 505, 507, 536, 549, 588
<223> n = A,T,C or G
<400> 320
gccggcacca tgtcgaggca ggcgaaccgt ggcaccgaga gcaagaaaat gagctctgag 120
ctcttcaccc tgacctatgg tgccctggtc acccagctat gtaaggacta tgaaaatgat 180
gaagatgtga ataaacagct ggacaaaatg ggctttaaca ttggagtccg gctgattgaa 240
gatttcttgg ctcggtcaaa tgttgggagg tgccatgact ttcgggaaac tgcggatgtc 300
attgccaagg tggcgttcaa gatgtacttg ggcatcactc caagcattac taattggagc 360
ccaqctqqtq atqaattctc cctcattttq qaaaataacc ccttggtgga ctttgtggaa 420
cttcctgata accactcatc ccttatttat tccaatctct tgtgtggggt gttgcgggga 480
gctttggaga tggtccagat ggctngngga ggcccaagtt tgtccaggac accctnaaag 540
gagacgggng tgacagaaat ccggatgaga ttcatcaggc ggattganga c
<210> 321
<211> 260
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 248, 252
<223> n = A,T,C or G
<400> 321
ctgcttggct ccacacqtgg gccgccgtag gtattccgac cggtaattcc tcctattggt 60
gtgcagcagc cacattgaag gatagagtgg cagcagaggc caaggatcgt gagttgatgg 120
agtttgctgc tgaaaatgaa gggaagtctg ggggaggtct ccacagcgta gctgaggggg 180
tgcggctaag tccagagcct ggcagggagg gagtaaggga cttagcaggg gcggaggagt 240
tctgcggngg anaggagggg
<210> 322
<211> 559
<212> DNA
<213> Homo sapiens
```

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<220>
<221> misc_feature
<222> 61, 85, 87, 136, 142, 148, 161, 164, 180, 183, 203, 204,
234, 275, 286, 307, 311, 313, 337, 491, 523, 526
<223> n = A.T.C or G
<400> 322
ttccacatga catggagtgt gaagctggat gagcacatca ttccactggg aagcatqqca 60
nttaacagca totcaaaact qactnanctc acccagtott ccatgtattc acttoctaat 120
gcacccactc tggcanacct gnaggacnat acacatgaag ncantgatga tcagccagan 180
aanceteact ttgacteteg canngtgata tttgagetgg atteatgeaa tggnagtggg 240
aaagtttqcc ttqtctacaa aagtgggaaa ccagnattag cagaanacac tqagatctqq 300
ttcctgnaca nancgttata ctggcatttt ctcacanaca cctttactgc ctattaccgc 360
ctgctcatca cccacctggg cctgccccag tggcaatatg ccttcccagc tatggcatta 420
gcccacaggc caagcaatgg ttcagcatgt ataaacctat cacctacaac acaaacctgc 480
tcacagaaga naccgactcc tttgtgaata agctagatcc canctnagtg tttaagagca 540
agaacaagat cgttatccc
<210> 323
<211> 492
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 412, 446
<223> n = A,T,C or G
<400> 323
cctgtctccc agccgtacca gcgagggctc ggccggcagc gccgggctgg ggggcggcgg 60
cgccggcgcc ggagccgggg tggqtqcaqq cgqcqqcqqq qqcaqcqqcq cqaqcaqcqq 120
cggcggggcc ggggggctgc aacccagcag ccgcgctggc ggcggccggc cctccaqccc 180
cagocogtog gtggtgagog agaaqqaqaa qqaaqaqttq qaqoqqotqc aqaaaqaqqa 240
ggaggagagg aagaagaggc tgcagctgta tgtgttcgtg atgcgctgca tcgcctaccc 300
ctttaatgcc aagcagccca ccgacatggc tcgccggcag cagaagatca gcaaacagca 360
gotgcagaca gtcaaggacc ggtttcaggc tttcctcaat ggggaaaccc anatcatqqc 420
tgacgaagcc ttcatgaacc gctqtnqcaq aqttactatq aqqtqttcct qaaqaccacc 480
cqtqtqqccq ca
                                                                   492
<210> 324
<211> 474
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 141, 184, 357
<223> n = A,T,C or G
<400> 324
aatttcagca acatacttct caatttcttc aggatttaaa atcttgaggg attgatctcg 60
cotcatgaca gcaagttcaa tgtttttgcc acctgactga accacttcca ggagtgcctt 120
gatcaccago ttaatggtca natcatctgt ttcaatggct tcgtcagtat agttcttctc 180
cagnaactca cqcactgact tggcaccccq qcctatgqca ttgqccttcc aggcatgqta 240
tgtgcccgag gggtcagtct gatagagcct aggagtgcca tcaaagtcga aacccacqat 300
gagggcagag atgccaaacg gcctgcgccc attgctctgc gtataacgct gcttcanact 360
ggcgatgtag cgggtgatgt actccacagt gaccqqqtcc tccacaqtca qccgqtqqct 420
```

```
ctggcactcc acccgggccc tgttgatgac tatccttgca tcggcggtga ggcc
                                                                  474
<210> 325
<211> 532
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 517
<223> n = A.T.C or G
<400> 325
gaggagacag gacagagcgt ctggagaggc aggaggacac cgagttcccc gtgttggcct 60
ccaggtcctg tgcttgcgga gccgtccggc ggctgggatc gagccccgac aatgggcaac 120
gcgcaggagc ggccgtcaga gactatcgac cgcgagcgga aacgcctggt cgagacgctg 180
caggoggact cgggactgct qttgqacqcq ctqctqqcqc qqqqcqtqct caccqqqcca 240
gagtacgagg cattggatgc actgcctgat gccgagcgca gggtgcgccq cctactgctg 300
ctggtgcagg gcaagggcga ggccgcctgc caggagctgc tacgctgtgc ccagcgtacc 360
gegggegege eggacecege ttgggaetgg eageaegtgg gteegggeta eegggaeege 420
agotatgaco etecatgece aggecaetgg aegeeggagg cacceggete ggggaceaea 480
tgccccgggt tgcccagact tcagaccctg acgaggncgg gggccctgag gg
<210> 326
<211> 322
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 49, 132
<223> n = A,T,C or G
<400> 326
caaaattaac atttttatta aatcaagtta aaaaaaatgt tcagtgtana aaagtcaaca 60
agggttttaa caaaaccaaa atataccttt ttatacaata tatgtatata ttagcagcaa 120
actacttctg anattctctt tcttttatgt tcttctaqtt attttaaaqa aagcataaac 180
aatgtatatt agtatggaat gtcagcaaat ccactcttag tcctttattc tgtgatttgg 240
gccttctaca aaatactttg tgattctcac taatgaatat taagaacata cccaatttta 300
actaaaaaqt aqtqaaacaq tq
                                                                   322
<210> 327
<211> 387
<212> DNA
<213> Homo sapiens
<400> 327
aaaaccgtgt actattagcc atggtcaacc ccaccgtgtt cttcgacatt gccgtcgacg 60
gegageeett gggeegegte teetttgage tgtttgeaga caaggteeca aagacageag 120
aaaatttteg tgetetgage actggagaga aaggatttgg ttataagggt teetgettte 180
acagaattat tocagggttt atgtgtcagg gtggtgactt cacacgccat aatggcactg 240
gtggcaagtc catctatggg gagaaatttg aagatgagaa cttcatccta aagcatacgg 300
gtcctggcat cttgtccatg gcaaatgctg gacccaacac aaatggttcc cagtttttca 360
tctgcactgc caagactgag tggttgg
<210> 328
<211> 502
<212> DNA
```

```
<213> Homo sapiens
<220>
<221> misc feature
<222> 354
<223> n = A,T,C or G
<400> 328
ageageeegg egeggeegee gegeeggegg geggeaagge teegggeeag catggggget 60
togtggtgac tgtcaagcaa gagcgcggcg agggtccacg cgcgggcgag aaggggtccc 120
acgaggagga qccggtgaag aaacgcggct ggcccaaggg caagaagcgg aagaaqattc 180
tgccgaatgg gcccaaggca ccggtcacgg gctacgtgcg cttcctgaac gagcggcgcg 240
ageagateeg cacqcqccac ceggatetqc cettteeega gateaccaag atgetqqqcq 300
ccgagtggag caagctgcag ccaacggaaa agcagcggta cctggatgag gccnagagag 360
agaagcaqca qtacatqaaq qaqctqcqqq cqtaccaqca qtctqaaqcc tataaqatqt 420
gcacggagaa gatccaggag aagaagatca agaaagaaga ctcgagctct gggctcatga 480
acactettet gaatggacae aa
<210> 329
<211> 463
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 97, 219, 256, 331, 457
<223> n = A,T,C or G
<400> 329
caagttgcac attttaattt acaattttta ccaataaaaa ggattagttt acaaaaaggg 60
aagtoottta tacaaaataa ggacaatttg taaaganaat ccactgtcat gttttgoott 120
gtcaagtcaa aactcaaata gcttgttttg gtaaaattat tccagaaaca taatccagac 180
aaaatcaata acgtcatcag cttcctaacc atgtttaana ggaataactt catgaacatt 240
ttqccctqaa ctqaanagtt ctaaatactt qtaaaccttt aqqaaaaaat qactqctcqc 300
aggcagcttg actggtaaga gggtacacca nagactccgg gtcactcact gtcagaatat 360
tottatacat acaatgagto tocacgootg tacaatgagt gtogtgcaac ataattggag 420
taatggcctc taaaatttta caagtaaact ttattgnggc ccc
<210> 330
<211> 500
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 350, 388, 397, 426, 478, 490, 491
<223> n = A,T,C or G
<400> 330
taattataga totacaaaat atqaaatgta ttocaaqaat qoaqaaaaac catotagaaq 60
caaaaggact ataaaacaaa aacagagaag aaaattcatg gctaaaccag ctgaagaaca 120
gettgatgtg ggacagteta aagatgaaaa catacataca teacatatta eecaagacga 180
atttcaaaga aattcagaca qaaatatgga agagcatgaa gagatgggaa atgattgtgt 240
ttccaaaaaa acagatgcca cctgtgggaa qcaaqaaaaq taqcactaqa aaaqataaqg 300
aaqaatctaa aaaqaaqcqc ttttccaqtq aqtccaaqaa caaacttqtn cctqaaqaaq 360
tgacttcaac tgtcacgaaa agtcgaanaa tttccanqcq tccatctqat tqqtqqqtqq 420
taaaancaga ggagagtoot qtttatagca attottoagt aagaaatgaa ttaccaantg 480
catcacaatn ntgcccggaa
                                                                   500
```

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<210> 331
<211> 494
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 222, 290, 314, 319, 338, 449, 460
<223> n = A,T,C or G
<400> 331
tototototo totoaaaatt acagtottoa ttotoattoa cotoagoago aaatttoact 60
tgaattcact taggatcgca ggaatcaggg gaaagtgatt ttaaaggtgg tttctccagc 120
acattttaag aaaagggacc aaaagttatt ttagcttcct caatagattq catqttgctt 180
attaggataa taaattaata ttaaatgcaa tatatgtctt gnctttatta tggcatctat 240
ttaggagttg ttcaaatcac tgcagtaggg ctctgcaaat aaaataatgn aacctattat 300
catggatcta atgnactgna actttatcag tgaaaggnaa aatctcaaat aacaagtaca 360
aacattggac aattacctat aaagatttgt aaaaggaaaa tttttccata gatttcattc 420
ttggcatttt gtaaagacga ccctgcagnc ccctgtttgn aactttttta ataaaataga 480
catctqttta cttq
<210> 332
<211> 538
<212> DNA
<213> Homo sapiens
<400> 332
aaagaacaaa tggaacgcga tggttgttct gaacaagagt ctcaaccgtg tgcatttatt 60
gggataggaa atagtgacca agaaatqcag caqctaaact tqqaaqqaaa qaactattqc 120
acagccaaaa cattgtatat atctgactca gacaagcgaa agcacttcat gttgtctgta 180
aagatgttet atggeaacag tgatgacatt qqtgtqttee teaqeaaqeq qataaaaqte 240
atotocaaac ottocaaaaa gaagcagtoa ttgaaaaatg otgaottatg cattgootca 300
ggaacaaagg tqqctctgtt taatcqacta cqatcccaga caqttaqtac caqatacttq 360
catgtagaag gaggtaattt toatgcoagt toacagcagt ggggagcott ttttattoat 420
ctcttggatg atgatgaatc agaaggagaa qaattcacag tccgagatgg ctacatccat 480
tatggacaaa cagtcaaact tgtgtgctca gttactggca tggcactccc aagattga
<210> 333
<211> 499
<212> DNA
<213> Homo sapiens
<400> 333
ctcagcctgc gggactgctc ggctcggctt ctaggcggtt ttgatgaaca cctggcttta 60
catctcactc tectatecca teatetatqt ecaatatqaq atetagqtea ettteacett 180
tgattggatc agagactcta ccttttcatt ctggaggaca gtggtgtgag caagttgaga 240
ttgcagatga aaacaatatg cttttggact atcaagacca taaaggagct gattcacatg 300
caggagttag atatattaca gaggccctca ttaaaaaaact tactaaacag gataatttgg 360
ctttgataaa atctctgaac ctttcacttt ctaaaqacgg tggcaagaaa tttaagtata 420
ttgagaattt ggaaaaatgt gttaaacttg aagtactgaa tctcagctat aatctaatag 480
ggaagattga aaagtcgga
<210> 334
<211> 561
<212> DNA
<213> Homo sapiens
```

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<220>
<221> misc feature
<222> 503, 548
<223> n = A,T,C or G
<400> 334
ttcccggtag ttcagctgca catgaataga acagcaatga gagccagtca gaaggacttt 60
gaaaattcaa tgaatcaagt gaaactcttg aaaaaggatc caggaaacga agtgaagcta 120
aaactctacg cgctatataa gcaggccact gaaggacctt gtaacatgcc caaaccaggt 180
gtatttgact tgatcaacaa gqccaaatqq qacqcatqqa atqcccttqq caqcctqcc 240
aaggaagctg ccaggcagaa ctatgtggat ttggtgtcca gtttgagtcc ttcattggaa 300
tcctctagtc aggtggagcc tggaacagac aggaaatcaa ctgggtttga aactctggtg 360
gtgacctccg aagatggcat cacaaagatc atgttcaacc cggcccaaaa agaaaaatgc 420
cataaacact gagatgtatc atgaaattat gcgtgcactt aaagctgcca gcaaggatga 480
ctcaatcatc actgttttaa cangaaatgg tgactattac agtagtggga atgatctgac 540
taacttcnct gatattcccc c
                                                                  561
<210> 335
<211> 551
<212> DNA
<213> Homo sapiens
<400> 335
aagctqqtca tggctgggga gaccaccaac tcccgcggcc agcggctgcc ccagaaggga 60
gacgtggaga tgctgtgcgg cgggccgccc tgccagggct tcagcggcat gaaccgcttc 120
aattogogca cotactocaa gttcaaaaac tototggtgg tttccttcct cagctactgc 180
gactactacc ggccccggtt cttcctcctg gagaatgtca ggaactttgt ctccttcaag 240
cgctccatgg tcctgaagct caccctccgc tgcctggtcc gcatgggcta tcagtgcacc 300
ttcggcgtgc tgcaggccgg tcagtacggc gtggcccaga ctaggaggcg ggccatcatc 360
ctggccgcgg cccctggaga gaageteeet ctgtteccqq agecactqca cqtqtttqct 420
ccccgggcct gccagctgag cgtggtgggt ggatgacaag aagtttgtga gcaacataac 480
caggitigage tegggteett teeggaceat acggigegag aaacgatgte egacetgeeg 540
gaagtgcgga a
                                                                  551
<210> 336
<211> 540
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 517
<223> n = A,T,C or G
<400> 336
aggtctatgt ctactgaagg caataaacga ggaatgatcc agcttattgt tqcaaggaga 60
ataagcaagt gcaatgagct gaagtcacct gggagccccc ctggacctga gctgcccatt 120
gaaacagcgt tggatgatag agaacgaaga atttcccatt ccctctacag tgggattgag 180
gggcttgatg aatcgcccag cagaaatgct gccctcagta ggataatggg taaataccag 240
ctgtccccta cagtgaatat gccccaagat gacactgtca ttatagaaga tgacaggttg 300
ccagtgette etccacatet etctgaccag tectetteca geteccatga tgatgtgggg 360
tttgtgacgg cagatgctgg tacttgggcc aaggctgcaa tcagtgattc agccgactgc 420
totttgagtc cagatgttga tocagttott gottttcaac gaaaaaggat ttggacgtca 480
gaagtatgtc agaaaaacgc accaaagcaa ttttcanatg ccaqtcaatt ggatttcgtt 540
```

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<211> 422
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 410
<223> n = A.T.C or G
<400> 337
gcagcaggaa cagttacagc agcagcagca acagcagctg ttgcaacagc agcaggaaca 60
attgcagcag caacaactgc agcctcctcc cctggagccc gaggaggagg aagaggtgga 120
gctggagctc atgccggtgg acctggggtc agagcaggag ctggagcagc agcggcagga 180
gttggagcgg cagcaggagc tggaacggca gcaggagcag cggcagctgc agctcaaact 240
gcaggaggag ctgcagcagc tggagcaaca gctggagcag cagcagcagc agctggagca 300
gcaggaggtg cagctggagc tgaccccggt ggagctaggc gcccagcagc aggaggtgca 360
gctggagctg acccccgtgc agccggagct gcagctggaa ctggtgccan cccagggggc 420
                                                                  422
<210> 338
<211> 601
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 486, 566, 568
<223> n = A,T,C or G
<400> 338
catcttacga acgctctatg atgtcttatg agcggtctat gatgtcccct atggctgaac 60
getetatgat gteageetac gagegeteta tgatgteage etacgagege tetatgatgt 120
cccctatggc tgagcgctct atgatgtcag cttatgaacg ctccatgatg tcagcttatg 180
aacgctccat gatgtcccca atggctgatc gatctatgat gtccatgggt gctgaccggt 240
ctatgatgtc gtcatactct gctgctgacc ggtctatgat gtcatcgtac tctgcagctg 300
accgatctat gatgtcatct tatactgctg atcgttcaat gatgtctatg gctgctgatt 360
cttacaccga ttcttacact gacacatata cagaggcata tatggtgcca cctttgcctc 420
ctgaagagcc cccaacaatg ccaccgttgc cacctgagga gccaccaatg acaccaccat 480
tgcctnctga ggaaccaccc agagggtcca gcattgccca cttgagcagt cagcattaac 540
cagettgaaa atacttggcc ctacanangg tgccatcatt accatctgaa gagetgtatc 600
<210> 339
<211> 440
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 429
<223> n = A,T,C or G
<400> 339
agagggagga ggcccaactg gtgatgctgc tgctgctgct gctgccgccg ccgccgcctc 60
tattgctgat actctagtgg ggctggaagg gtggttccta ttcgcaccat cgccaaccag 120
agacagaggg aaaaaaaaaa ccggcagcca ctgctgatgt tgggttcgga ggctgcatcc 180
gactoggtca caaggaaaat ggattcagtt tgcatctctc cctcctttaa acagcttctc 240
cgggtctcag catggtatca aagcttgaaa gagagaagac tcaagaagcg aagaggattc 300
```

```
gtgagctgga gcagcgcaag cacacggtgc tqqtgacaga actcaaagcc aagctccatq 360
aggagaagat gaaggagctg caggctgtga gggagaacct tatcaagcag cacgacagga 420
aatgtcaang acggtgaagg
<210> 340
<211> 450
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 441, 442
<223> n = A,T,C or G
<400> 340
gatttccagg ggcggatatt gagtgtcgac ccagaggaag aaagggagga gggcccgcct 60
aggatteete aggeegacea gtggaagtet teaaacaaga geetggtgga ggetetgggg 120
ctggaagccg agggtgcagt tcctgagaca cagactttga ccggatggag taaggggttc 180
attggcatgc acagggaaat gcaagtcaac cccatttcaa agcggatggg gcccatgact 240
gtggtcagga tggacgcttc agtccagcca ggcccttttc ggaccctgct ccagtttctt 300
tatacgggac aactggatga aaaggaaaag gatttggtgg gcctggctca gatcgcagag 360
gtcctcgaga tgttcgattt gaggatgatg gtggaaaaca tcatgaacaa ggaagccttc 420
atgaaccagg agattacgaa nncctttcac
<210> 341
<211> 451
<212> DNA
<213> Homo sapiens
<400> 341
aacagctatt aaaacagaaa atggatgaac ttcataagaa gttgcatcag gtggtggaga 60
catcccatga ggatctgccc gcttcccagg aaaggtccga ggttaatcca gcacgtatgg 120
ggccaagtgt aggctcccag caggaactga gagcgccatg tcttccagta acctatcagc 180
agacaccagt gaacatggaa aagaacccaa gagaggcacc toctqttqtt cotcotttqq 240
caaatgctat ttctgcagct ttggtgtccc cagccaccag ccagagcatt gctcctcctg 300
ttcctttgaa agcccagaca gtaacagact ccatgtttgc agtggccagc aaagatgctg 360
gatgtgtgaa taagagtact catgaattca agccacagag tggagcagag atcaaagaag 420
ggtgtgaaac acataaggtt gccaacacaa g
<210> 342
<211> 498
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 462, 475
<223> n = A,T,C or G
<400> 342
ctcaagcagg ctattgaaga ggaaggaggc gatccagata atattgaatt aactgtttca 60
actgatactc caaacaagaa accaactaaa ggcaaaggta aaaaacatga agcagatgag 120
ttgagtggag atgcttctgt gggaagatga tgcttttatc aaggactgtg aattggagaa 180
tcaagaggca catgagcaag atggaaatga tgaactaaag gactctgaag aatttggtga 240
aaatgaagaa gaaaatgtgc attccaagga gttactctct qcaqaaqaaa acaaqaqaqc 300
tcatgaatta atagaggcag aaggaataga agatatagaa aaagaggaca tcgaaagtca 360
ggaaattgaa gctcaagaag gtgaagatga tacctttcta acagcccaag atggtgagga 420
agaagaaaat gagaaagata tagcagggtt ctggtgatgg cncacaagaa gtatntaaac 480
```

```
ctcttccttc aaaaaggg
                                                                   498
<210> 343
<211> 491
<212> DNA
<213> Homo sapiens
<400> 343
ecgacceta eteggeggeg caactecaca accagtacgg ceccatqaat atgaacatgg 60
gtatgaacat ggcagcagcc gcggcccacc accaccacca ccaccaccac caccccggtg 120
cctttttccg ctatatgcgg cagcagtgca tcaagcagga gctaatctgc aagtggatcg 180
accccgagca actgagcaat cccaagaaga gctgcaacaa aactttcagc accatgcacg 240
agctggtgac acacgtctcg gtggagcacg tcggcggccc ggagcagagc aaccacgtct 300
gettetggga ggagtgteeg egegagggea ageeetteaa ggeeaaatae aaactggtea 360
accacatcog cgtgcacaca ggcgagaaac ccttccctgc ccttccgggt gtggcaaagt 420
cttcgcgcgc tccgagaacc tcaagatcca caaaaggacc acacagggga gaagccqtcc 480
agtggagttg a
<210> 344
<211> 412
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 310, 377
<223> n = A.T.C or G
<400> 344
gtgcgctgtc ttcccgcttg cgtcagggac ctgcccgact cagtggccgc catggcatca 60
gatgaaggca aactttttgt tggagggctg agttttgaca ccaatgagca gtcgctggag 120
caggtcttct caaagtacgg acagatctct gaagtggtgg ttgtgaaaga cagggagacc 180
cagagatete ggggatttgg gtttgtcace tttgagaaca ttgacgacge taaggatgee 240
atgatggcca tgaatgggaa gtctgtagat ggacggcaga tccgagtaga ccaggcaggc 300
aagtegtean acaacegate cegtgggtac egtggtgget etgeeggggg eeggggette 360
ttccgtgggg gcccgangac ggggcccgtg ggttctctaa aagaagaggg ga
                                                                  412
<210> 345
<211> 498
<212> DNA
<213> Homo sapiens
<400> 345
aactagtote gggccatcot ttetgegeae ceggtgtege tgggetgeae eeegggeggg 60
qacqtccqcc qqqcacqqqa qqqqqccaaq atqccqatca ataaatcaqa qaaqccaqaa 120
agctgcgata atgtgaaggt tgttgttagg tgccggcccc tcaatgagag agagaaatca 180
atgtgctaca aacaggctgt cagtgtggat gagatgaggg gaactatcac tgtacataag 240
actgattctt ccaatgaacc tccaaagaca tttacttttq atactgtttt tggaccagag 300
agtaaacaac ttgatgttta taacttaact gcaagaccta ttattgattc tgtacttgaa 360
qqctacaatq qqactatttt tqcatatqqa caaaccqqaa caqqcaaaac ttttaccatq 420
gaaaggtgtc gagctattcc tgaacttaga ggaataattc cccaatttct ttgctcacaa 480
tatttgggcc atatttgc
<210> 346
<211> 427
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
<222> 348, 349
<223> n = A,T,C or G
<400> 346
agatggcggt cgccqtqaga actttgcagg aacagctgga aaaggccaaa gagagtctta 60
agaacgtgga tgagaacatt cgcaagctca ccggggggga tccgaatgac gtgaggccca 120
tocaagocag attgotggcc ctttctggtc ctggtggagg tagaggacgt ggtagtttat 180
tactgaggcg tggattctca gatagtggag gaggaccccc agccaaacag agagaccttg 240
aaggggcagt cagtaggctg ggcggggagc gtcggaccag aagagaatca cgccaggaaa 300
gcgacccgga ggatgatgat gttaaaaagc cagcattgca gtcttcannt gtagctacct 360
cccaaagagc gccccacgta gagaccttat ccagggatca aaattttgga tgaaaaaggg 420
gaaagcc
<210> 347
<211> 280
<212> DNA
<213> Homo sapiens
<400> 347
cacagaaagt teteogetee cagacatggg teectegget teetgeeteg gaagegeage 60
agcaggcatc gtgggaaggt gaagagcttc cctaaggatg accegtccaa gccggtccac 120
ctcacagcct tcctgggata caaggctggc atgactcaca tcgtgcggga agtcgacagg 180
ccgggatcca aggtgaacaa gaaggaggtg gtggaggctg tgaccattgt agagacacca 240
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<210> 348
<211> 411
<212> DNA
<213> Homo sapiens
<400> 348
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ggatgcaatc cattccatgg gttttattca cagagatgtg aagcctgata acatgctgct 120
ggataaatct ggacatttga agttagcaga ttttggtact tgtatgaaga tgaataagga 180
aggcatgqta cgatgtqata cagcgqttqq aacacctqat tatatttccc ctgaagtatt 240
aaaatcccaa ggtggtgatg gttattatgg aagagaatgt gactggtggt cggttggggt 300
attittatac gaaatgottg taqqtqatac accttittat gcagattott tqqttqqaac 360
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<210> 349
<211> 408
<212> DNA
<213> Homo sapiens
<400> 349
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ctaccacaag aagcggaagt atgagttggg gcgcccagct gccaacacca agattggccc 120
cogcogcate cacacagtee gtgtgegggg aggtaacaag aaatacegtg coctgaggtt 180
ggacgtgggg aatttctcct ggggctcaga gtgttgtact cgtaaaacaa ggatcatcga 240
tgttgtctac aatgcatcta ataacgagct ggttcgtacc aagaccctgg tgaagaattg 300
categtgete ategacagea cacegtaceg acagtggtac gagteceact atgegetgee 360
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<210> 350
<211> 409
<212> DNA
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<213> Homo sapiens
<400> 350
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atcaatgctq ccaagactat tgcaqatatc atccgaacat gtttgggacc caagtccatq 180
atgaagatgc ttttggaccc aatgggaggc attgtgatga ccaatgatgg caatgccatt 240
cttcgagaga ttcaagtcca gcatccagcg gccaagtcca tgatcgaaat tagccggacc 300
caggatgaag aggttggaga tgggaccaca tcagtaatta ttcttgcagg ggaaatgctg 360
tetgtagetg ageactteet ggageageag atgeacceaa caggtgggg
<210> 351
<211> 226
<212> DNA
<213> Homo sapiens
<400> 351
aatcccaaac atataactga actcctcaca cccaattgga ccaatctatc accctataga 60
aqaactaatg ttagtataag taacatgaaa acatteteet cegcataage etgegteaga 120
ttaaaacact qaactqacaa ttaacaqccc aatatctaca atcaaccaac aagtcattat 180
taccctcact gtcaacccaa cacaggcatg ctcataagga aaggtt
                                                                  226
<210> 352
<211> 410
<212> DNA
<213> Homo sapiens
<400> 352
qeqqaqqqc tqqctqqqca qqaqqqttq qeqqqqaqcaqc aqqqccqcqq ccatqqqqaq 60
cttgaaggag qagctgctca aagccatctg gcacgccttc accgcactcg accaggacca 120
cagoggcaag gtotocaagt cocagotcaa ggtootttoo cataacotgt gcacggtgot 180
gaaggttcct catgaccaq ttgcccttga aqagcacttc agggatgatg atgagggtcc 240
agtgtccaac caggctaca tgccttattt aaacaggttc attttggaaa aggtccaaga 300
caactttgac aagattgaat tcaataggat gtqttggacc ctctgtgtca aaaaaaacct 360
cacaaagaat cccctgctca ttacagaaga agatgcattt aaaatatggg
                                                                  410
<210> 353
<211> 380
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 133, 162, 200, 210, 252, 324, 332, 349, 365, 371
<223> n = A.T.C or G
<400> 353
gagtttattt agaaagtatc atagtgtaaa caaacaaatt gtaccacttt gattttcttg 60
quatacaaga ctcgtqatqc aaaqctqaaq ttqtqtqtac aaqactcttq acaqttqtqc 120
ttototagga ggntgggttt ttttaaaaaa agaattatot gngaaccata cgtgattaat 180
aaagatttcc tttaaggcan aggctggtcn agatgctgct gttatcttct gcctcagaca 240
gacagtataa gnggtcttgt ttctaagatt cctaccacca gttactttgg gccaagtatc 300
cacateceet tgcgtatggg aggngggtga anagtgttgg atgcaaagng gttattatgg 360
gaagnagete natggtaaaa
<210> 354
<211> 379
<212> DNA
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<213> Homo sapiens
<220>
<221> misc feature
<222> 120, 124, 138, 194, 205, 220, 224, 275, 334
<223> n = A,T,C or G
<400> 354
caacacatct ttattaaaca cctqaaqtta ctqqqaqqaq qccatqatqc tqqacacact 60
gtcaaagtca atcttctcca caatgttctt gggtttaatg ctctcttctt ggctacagan 120
gaanatetge cocquetngt eggeacteea geogratttg eteatecaca cetttagetg 180
gctgtccgac aganccccga gcatntcggc cagcagccan cggncaatgt gctggtaagt 240
gatacccaca acatggcaga taaactttcg gacanagtct tcaaagccag ttataccttc 300
caagaggtcc atgttttcat ccaqggcttq ccanaaqcct qqaaatqqca qqtctccaac 360
aggtccccca ggtacaaaa
                                                                  379
<210> 355
<211> 499
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 407, 459, 483
<223> n = A.T.C or G
<400> 355
gtccagaget getggtgete cegtteecca gaccetacce etatecccag tggagecgga 60
gtgcgggcgc gccccaccac cgcctcacc atqqtqctqt tqqcaqcaqc qqtctqcaca 120
aaagcaggaa aggctattgt ttetegacag tttgtggaaa tgacccgaac teggattgag 180
ggcttattag cagcttttcc aaagctcatg aacactggaa aacaacatac gtttgttgaa 240
acagagagtg taagatatgt ctaccagcct atggagaaac tgtatatggt actgatcact 300
accaaaaaca qcaacatttt aqaaqatttq qaqaccctaa qqctcttctc aaqaqtqatc 360
cctgaatatt gcgagcctta gaagagaatg aaatatctga gcactgnttt gatttgattt 420
ttgcttttga tgaaaatgtc gcactgggat acccgggang aatgttaact tggcacagat 480
canaaccttt cacagaaaa
                                                                  499
<210> 356
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 381
<223> n = A,T,C or G
<400> 356
gggcttctgc tgaggggca ggcggagctt gaggaaaccg cagataagtt tttttctctt 60
tgaaagatag agattaatac aactacttaa aaaatatagt caataggtta ctaagatatt 120
gcttagcqtt aaqtttttaa cgtaatttta atagcttaag attttaagag aaaatatgaa 180
gacttagaag agtagcatga ggaaggaaaa gataaaaggt ttctaaaaca tgacggaggt 240
tgagatgaag cttcttcatg gagtaaaaaa tgtatttaaa agaaaattga gagaaaggac 300
tacagagece egaattaata ecaatagaag ggeaatgett ttagattaaa atgaaggtga 360
cttaaacagc ttaaagttta ntttaaaagt tgtaggtgat taaaataatt tgaaggcgat 420
cttttaaaaa gagattaaac ccgaaggtga ttaaaagacc ttgaaatcca tgacgccagg 480
gagaattgcc gtcatttaaa gcctagttaa c
                                                                  511
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<210> 357
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 339, 457, 475, 486
<223> n = A,T,C or G
<400> 357
qatacttcac atttccctaq qqacqqqaqc ccqaqqqqtc cqttcqqccc tcttcctctc 60
getgggeega cacceegetg taggacegta accettagte ceaatgeete egtaagegga 120
gttgagtggg tgcctgtggt tggagctgtg gaggtgtccc cggtggcgag cgcggccaga 180
actgcggtca cttaagtttt ccgtgtqcgg gttgcaaqqa qcgtqcqtqc qtctgqtata 240
atttggcttc ctgagattct gcttacaaga aaggagtggg aaataccctt ggaaagaaaa 300
ctaaaacagt aagaaaacca aaacttattt ttacatggnt gtcagcacat ttaccgatat 360
ggacactttt cccaataatt tcctcctggt ggagacagtg gattgacagg ttctcagtcg 420
gaatteeaga aaaatgttaa ttgatgaaaa qqqtaenatg tgageateat aaagntaatt 480
attaanacac tgaaggctga acacacaagg g
<210> 358
<211> 401
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 358, 361, 372, 374, 386
<223> n = A,T,C or G
<400> 358
acggatgaag atgatgacct tcaagaaaat gaagacaata aacaacataa agaaagcttg 60
aaaagagtga cctttgcttt accagatgat gcggaaactg aagatacagg tgttttaaat 120
gtaaagaaaa attotgatga agttaaatoo tootttqaaa aaagacagga aaagatgaat 180
gaaaaaattg catctttaga aaaagagttg ttagaaaaaa agcccgtggc agcttcaggg 240
ggaagtgaca gcacagaaga ggccagagaa cacctcctgg aggagaccct acctttgcca 300
tetgeeegat ggeeetgtga ttacagagga accecettca etggagattt etttaacnga 360
ngatagagat engnttggga tatgtntcct taagaaaacc t
                                                                   401
<210> 359
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 299, 318, 363, 381, 395, 412
<223> n = A,T,C or G
<400> 359
gcgatgcccg cgcgcccagg acgcctcctc ccgctgctgg cccggccggc ggccctgact 60
gegetgetge tgetgetget gggeeatgge ggeggegge getggggege cegggeecag 120
gaggeggegg eggeggegge ggaegggeee eeegeggeag aeggegagga eggaeaggae 180
ccgcacagca agcacctgta cacggccgac atgttcacgc acgggatcca gagcgcccgc 240
geacttegte atgttetteg egecetggtg tggacacttg ceageggett geageegant 300
ttggaatgac cttggganga acaaatacaa cagcatggaa agaatgccaa aagtctatgt 360
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ggnttaaagt ggacttgcac nggccacttc gactngtgct cccccaaggg gngggaagat 420

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acccacctta aaacttttca accaagccaa aaactttgaa aaccaggtct cggattcaaa 480
atggaaaact gatgttcaac ctgaacaaga a
<210> 360
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 182, 187, 207, 218, 311, 359, 390, 401, 405, 412, 413, 435,
<223> n = A,T,C or G
<400> 360
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tagacagcaa gtttctaaaa cagcaaaaga aagatgtggt caaacggcaa gaagtaatat 120
atgagttgat gcagacagag tttcatcatg tcccgactct caagatcatg agtggtgtgt 180
cnagccnggg gatgatggcg gatctgnttt ttgagcanca gatggtagaa aaagctggtt 240
ccctqtttqq atgaqcttqa tcaqtatccc atacccattc tttccaqaqq attcttqqaq 300
ccggaaagaa nggagtcttc ttggtgggat aaaaagtgaa aaagaacttt ctcttcaana 360
aggatagggg gatqtgcttt gtaaaatcan tttttcaqqq nqqanaatqc cnnaaccqtt 420
ttaaagaaaa acatnttggg naagtttttg tgggccaaca ttacccggtc ttgtaaacct 480
accttcaaag aacctttttg cccagggtta a
<210> 361
<211> 411
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 228, 230, 338, 339, 348, 358, 379
<223> n = A,T,C or G
<400> 361
getcagegge cegateceae ggaagegge teggagggt gggaceegge eggaceggag 60
atggcgccgc cagcgggcgg ggcggcggcg gcggcctcgg acttgggctc cgccgcagtg 120
ctettggetg tgeacgecge ggtgaggecg ctgggcgecg ggccagacge cgaagcacaa 180
cttgcggagg ctgcagctta acgcggaccc tgagaagcct ggcgcttncn gctggaactt 240
cttqqcqcqq qacctqqqqc qqtaatttqa qtqqccctqa qtcatttcta caccatccaq 300
qcccaccaca cqactaaqct cacaaqaaqq ctqaactnnc tqattctnaa cctaqaanta 360
cgtqcatcta tcaqtqccnq aaqaaatqac aacataccac tqqcaactct q
                                                                  411
<210> 362
<211> 511
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 472, 483, 500, 510
<223> n = A,T,C or G
<400> 362
cgggggaccg ggctgccttq gccctcagc gctcqcqtct tttccqqcag ttqqaacqct 60
tectgttgtc ctcacccgta accgcctgtt gecccctgtc tcagagtccc tcacgcgtcc 120
cotcocqtct ttqqctcqtt qqctqccqcc qccqqqqctt cqccaqcctt caaqtcqaqa 180
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ctactggccq aaggggcqtc tqcqqctctc cqccqtcccc aqccctqcct ctccctqgqc 240
totgocatgg caatgacagg otcaacacot tgotcatoca tgagtaacca cacaaaggaa 300
agggtgacaa tgaccaaaag tgacactgga gaatttttat agcaacctta tcgctcacat 360
gaagaacgag aaatgagaca aaagaagtta gaaaaagggg atggaagaag aaggcctaaa 420
aaaatgaagg agaaaaccaa cttccgaaga tcaaccacat tgcttcggaa anggaaacaa 480
aantttcttt cgtttgaaan aaaaacaaan a
<210> 363
<211> 401
<212> DNA
<213> Homo sapiens
<400> 363
caggatetgg ggagaaagag ecceatect tetetetetg ecaccattte ggacaeceeg 60
cagggacteq tittgggatt egeactgact teaaggaagg acgegaacce tietetgace 120
ccagctcggg cggccacctg tctttgccgc ggtgaccctt ctctcatgac cctgcggtgc 180
cttqaqccct ccqqqaatqq cqqqqaaqqq acgcgqaqcc aqtqqqqqac cqcqqqqtcg 240
geggaggage cateceegea ggeggegegt etggegaagg ceetgeggga geteggteag 300
acaggatggt actggggaag tatgactgtt aatgaagcca aagagaaatt aaaagaggca 360
ccagaaggaa ctttcttgat tagagatagc tcgcattcag a
<210> 364
<211> 401
<212> DNA
<213> Homo sapiens
<400> 364
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qaaaatcagg aaaaaaattt tttttcaata atcttattcc ctatattaaa ttagatttga 120
agaggattaa cqttqtttta qtttqqqtcc agatcaqcct tatacaacat ttctaaactc 180
atttgtactt ttaaaaaatt taaacacaga cttctaaaat tacttgatgt aagtaattta 240
aatcacttat gaccaagtta ttaaccttat gaatcagaag tctgaccctt gtaggaaatt 300
atattcacat ataaagtaca tcagatcttt gccatatatt gatggttatt atgcataaac 360
acattgagtt gtgttggaag cagatttata aacctgcatg t
<210> 365
<211> 361
<212> DNA
<213> Homo sapiens
<400> 365
atctggagtt gcacaaatag ttctttagaa cataaaacta aatggattta tacataacag 60
ttacattcag catttaagag aggcagtaca aaaatgtgtt ctgcttttat ctgatataaa 120
ttgcatgtaa taccatgatt taaacaatat cagttatatt aactaatgcc atgagatata 180
tottactcag aacgtctgat gtttcccata atagacagaa aaaatgcagt tgtatgagca 240
actgagtttc ttttcatctt caaattcatt tgtgatggtg ggaagatcta aggacaatcc 300
ttccattqaa qaaqtaqqaa aaacaqttca gcactqttct gaactcatca aaaatgaaat 360
<210> 366
<211> 401
<212> DNA
<213> Homo sapiens
<400> 366
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gacgggcgtc ttcccggcta gtggagcccg gcgcggggcc cgctgcggcc gcaccgtgag 120
gggaggaggc cgaggaggac qcagcgccgg ctgccqqcqq gaggaagcqc tccaccaggg 180
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cccccgacgg cactcgttta accacatecg cgcctctgct ggaaacgctt gctggcgcct 240
gtcaccggtt ccctccattt tqaaagggaa aaaggctctc cccacccatt cccctgccc 300
taggageteg ageoggagga geoggetea tagegtteag eccetageag atectatece 360
ccqtqcaqtq qqcqaaatqq acqtqqtctq cqqtacqcgg c
<210> 367
<211> 401
<212> DNA
<213> Homo sapiens
<400> 367
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acaqatcctq aaqqatatqq qaatcacaqa gtatqaacca agggttataa atcaaatgtt 120
ggaatttgct ttccgttatg tgactacaat tctggatgat gcaaaaattt attcgagcca 180
tqctaaqaaa cctaatqttq atqcaqatqa tqtqaqactq qcaatccaqt qtcqtqctga 240
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tcaaacccct ttqccactqa ttaaqccata tqcaqqacct agactqccac ctqatagata 360
ctgcttaaca gctccaaact ataggctgaa gtccttaatt a
<210> 368
<211> 401
<212> DNA
<213> Homo sapiens
<400> 368
cggagcggta ggagcagcaa tttatccgtg tgcagcccca aactggaaag aagatgctaa 60
ttaaagtgaa gacgctgacc ggaaaggaga ttgagattga cattgaacct acagacaagg 120
tqqaqcqaat caaqqaqcqt qtqqaqqaqa aaqagggaat cccccacaa caqcagaggc 180
tcatctacag tggcaagcag atgaatgatg agaagacagc agctgattac aagattttag 240
gtggttcagt ccttcacctg gtgttggctc tgagaggagg aggtggtctt aggcagtgat 300
ggaccctcca ttttacctct ttaccctgtc gctcataatg aggcatcata tatcctctca 360
ctototogga caccatagoc otgoccocto cootggatgo o
<210> 369
<211> 174
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 6, 7
<223> n = A.T.C or G
<400> 369
qcqaqnnqqq cqccaaqcqc qqqqccqqaq cqqccttccc qqaqtccttt gcqcqqcacc 60
tggcgacaaa atggctgccc gagggagacg ggcggagcct cagggccggg aggctccggg 120
ccccgcgggc ggtggcggtg gcgggagccg ttgggctgag tcgggatcgg ggac
<210> 370
<211> 375
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 89, 117, 147, 232
<223> n = A,T,C or G
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<400> 370
tgcttttcca actttattta gaaaaacaaa tccaggtccc agtgccccct gtaccctccc 60
cgaccccagc cataatttaa ataacttana gacagagttq gagggagggq acagganagg 120
ttggggtcac ggtggaagga ggaaganagc ccactacagc cgccgcagcg cccgcttctt 180
gtccgtcttt ttcttggccg ccagcttctt atcgcgctcg ccagcatgct tnttggccat 240
gggaccotca gcccctcccg ggccccctgg ggccccaggg tcggtggagg aagottcagt 300
gecactggcc agggcccgac eggetteggc cetgeegetq qqcccqccqq egeccecqtq 360
gatetetgtg ageag
<210> 371
<211> 375
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 114, 188, 317
<223> n = A.T.C or G
<400> 371
taaattotaa aaaatatttt aataottgaa aacttotaaa acaaaaggta aggtaacatg 60
ttotttcaaa agtgaatttc acatgcaaac cattaattat atttattta ctgngagata 120
aaagcaaaac ataacattcg gagaaagaga ccagtaactg acctatttat tttatattat 180
attaatgnga atcctcatta qaaatgtgat aacgttattg cacaaacaaa accgtgggca 240
gaaacatccc agcaatgcag gggcgcccat accgggttac aagggatgtc cagcatgtqt 300
ttccctggaa cactcanagt ctgcactttt cctgcaaatg ggaccatgtc tgattattta 360
ttatgaaaga acact
                                                                  375
<210> 372
<211> 164
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 9
<223> n = A,T,C or G
<400> 372
cgctctgtnt cctcaacctc tacctggcgg aggttatatg taaagtcaga tgtgccactg 60
aacttgacag acacaaaatt ctactgcatt tgggctttat aatggcaagc ctgctctttt 120
tagtggtgaa cttgacttgc gcaatgctag ttcatggaga tgtc
                                                                  164
<210> 373
<211> 401
<212> DNA
<213> Homo sapiens
<400> 373
gogotytteg cotttgccta cotgeagoty tygoggotyc tootgtaccy cyagogycyg 60
ctgagttacc agagectetg cetetteete tgteteetgt gggeageget caggaccacc 120
ctettetecq cogeettete geteagegge tecetqueet tgeteeggee georgeteae 180
ctgcacttct tcccccactq qctgctctac tgcttcccct cctgtctcca gttctccacq 240
ctctgtctcc tcaacctcta cctggcggag qttatatqta aaqtcaqatq tqccactqaa 300
cttgacagac acaaaattct actgcatttg ggctttataa tggcaagcct gctcttttta 360
qtqgtgaact tqacttqcqc aatqctagtt catqqaqatq t
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<210> 374

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<211> 401
<212> DNA
<213> Homo sapiens
<400> 374
ggaatqatac cattcaqatt qatttqqaqa ctqqcaaqat tactqatttc atcaaqttcq 60
acactggtaa cctgtgtatg gtgactggag gtgctaacct aggaagaatt ggtgtgatca 120
ccaacagaga gaggcaccct ggatcttttg acgtggttca cgtgaaagat gccaatggca 180
acagctttgc cactcgactt tccaacattt ttgttattgg caagggcaac aaaccatqqa 240
tttctcttcc ccqaqqaaaq qqtatccqcc tcaccattqc tqaaqaqaqa qacaaaaqac 300
tggcggccaa acagagcagt gggtgaaatg ggtccctggg tgacatgtca gatctttgta 360
cqtaattaaa aatattqtqq caqqattaat aqcaaaaaaa a
                                                                   401
<210> 375
<211> 401
<212> DNA
<213> Homo sapiens
<400> 375
gagoggagto ogotggotga coogagogot ggtotocgoo gggaaccotg gggoatggag 60
aggtotgagt acctoggoog oggogoacgo tgcatogogg agccaggoog aggacgtgag 120
ggtggaggge teettteeeg tgaccatget teegggagae ggtgtgggge etgagetgat 180
quacqueqte aaggaggtgt teaaggetge egetgteeca gtggagttee aggageacea 240
cctgagtgag gtgcagaata tggcatctga ggagaagctg gagcaggtgc tgagttccat 300
gaaggagaac aaagtggcca tcattggaaa gattcatacc ccgatggagt ataaggggga 360
gctagcctcc tatgatatgc ggctgaggcg taaqttqqac t
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WO 02/092001 PCT/US02/14975 150

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WO 02/092001 PCT/US02/14975 155

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Asp Ile Ile Arg Thr Cys Leu Gly Pro Lys Ser Met Met Lys Met Leu $50 \hspace{1cm} 60$													
Leu Asp Pro Met Gly Gly Ile Val Met Thr Asn Asp Gly Asn Ala Ile $65 \hspace{1cm} 70 \hspace{1cm} 75 \hspace{1cm} 80$													
Leu Arg Glu Ile Gln Val Gln His Pro Ala Ala Lys Ser Met Ile Glu $85 \hspace{0.5cm} 90 \hspace{0.5cm} 95 \hspace{0.5cm}$													
Ile Ser Arg Thr Gln Asp Glu Glu Val Gly Asp Gly Thr Thr Ser Val $100 \\ 105 \\ 110$													
Ile Ile Leu Ala Gly Glu Met Leu Ser Val Ala Glu His Phe Leu Glu 115 120 125													
Gln Met His Pro Thr Val Val Ile Ser Ala Tyr Arg Lys Ala Leu 130 $$135\ $													
Asp Asp Met Ile Ser Thr Leu Lys Lys Ile Ser Ile Pro Val Asp Ile 145 $$150$$ 150 155													
Ser Asp Ser Asp Met Met Leu Asn Ile Ile Asn Ser Ser Ile Thr Thr $165 \hspace{1cm} 170 \hspace{1cm} 175$													
Lys Ala Ile Ser Arg Trp Ser Ser Leu Ala Cys Asn Ile Ala Leu Asp $180 $ $185 $ $190 $													
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Ile	Gln 290	Gln	Leu	Cys	Glu	Asp 295	Ile	Ile	Gln	Leu	Lys 300	Pro	Asp	Val	Val
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Ile	Gly 370	Asp	Glu	Tyr	Phe	Thr 375	Phe	Ile	Thr	Asp	Суз 380	Lys	Asp	Pro	Lys
Ala 385	Суѕ	Thr	Ile	Leu	Leu 390	Arg	Gly	Ala	Ser	Lys 395	Glu	Ile	Leu	Ser	Glu 400
				405	Gln				410					415	
			420		Val		_	425	_				430		
		435			Glu		440					445			
Trp	Pro 450	Tyr	Arg	Ala	Val	Ala 455	Gln	Ala	Leu	Glu	Val 460	Ile	Pro	Arg	Thr
465				_	Gly 470					475					480
				485	Gln				490					495	_
Glu	Thr	Gly	Thr 500	Leu	Val	Asp	Met	Lys 505	Glu	Leu	Gly	Ile	Trp 510	Glu	Pro
Leu	Ala	Val 515	Lys	Leu	Gln	Thr	Tyr 520	Lys	Thr	Ala	Val	Glu 525	Thr	Ala	Val

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Asn Cys Val Met Pro Glu Asp Val Lys Asn Phe Tyr Leu Met Thr Asn 65 70 75 80

Gly Phe His Met Thr Trp Ser Val Lys Leu Asp Glu His Ile Ile Pro $85 \\ 0 \\ 90$

Leu Gly Ser Met Ala Ile Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr 100 105 110

Gln Ser Ser Met Tyr Ser Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu 115 120 125

Glu Asp Asp Thr His Glu Ala Ser Asp Asp Gln Pro Glu Lys Pro His 130 135 140

Phe Asp Ser Arg Ser Val Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser 145 \$150\$

Gly Lys Val Cys Leu Val Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu 165 170 175

Asp Thr Glu Ile Trp Phe Leu Asp Arg Ala Leu Tyr Trp His Phe Leu 180 185 190

Thr Asp Thr Phe Thr Ala Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly
195 200 205

Leu Pro Gln Trp Gln Tyr Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln 210 215 220

Ala Lys Gln Trp Phe Ser Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn 225 230 230 235

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<210> 409
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<223> n = A,T,C or G
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<213> Homo sapiens
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WO 02/092001 PCT/US02/14975

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<211> 398
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PCT/US02/14975

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425

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WO 02/092001 PCT/US02/14975

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Lys	Gln	Gln	Ala 820	Lys	Ile	Glu	Ala	Thr 825	Gln	Lys	Leu	Glu	Gln 830	Val	Lys
Asn	Glu	Gln 835	Gln	Gln	Gln	Gln	Gln 840	Gln	Gln	Phe	Gly	Ser 845	Gln	His	Leu
Leu	Val 850	Gln	Ser	Gly	Ser	Asp 855	Thr	Pro	Ser	Ser	Gly 860	Ile	Gln	Ser	Pro
Leu 865	Thr	Pro	Gln	Pro	Gly 870	Asn	Gly	Asn	Met	Ser 875	Pro	Ala	Gln	Ser	Phe 880
His	Lys	Glu	Leu	Phe 885	Thr	Lys	Gln	Pro	Pro 890	Ser	Thr	Pro	Thr	Ser 895	Thr
Ser	Ser	Asp	Asp 900	Val	Phe	Val	Lys	Pro 905	Gln	Ala	Pro	Pro	Pro 910	Pro	Pro
Ala	Pro	Ser 915	Arg	Ile	Pro	Ile	Gln 920	Asp	Ser	Leu	Ser	Gln 925	Ala	Gln	Thr
Ser	Gln 930	Pro	Pro	Ser	Pro	Gln 935	Val	Phe	Ser	Pro	Gly 940	Ser	Ser	Asn	Ser
Arg 945	Pro	Pro	Ser	Pro	Met 950	Asp	Pro	Tyr	Ala	Lys 955	Met	Val	Gly	Thr	Pro 960
Arg	Pro	Pro	Pro	Val 965	Gly	His	Ser	Phe	Ser 970	Arg	Arg	Asn	Ser	Ala 975	Ala
Pro	Val	Glu	Asn 980	Cys	Thr	Pro	Leu	Ser 985	Ser	Val	Ser	Arg	Pro 990	Leu	Gln
Met	Asn	Glu 995	Thr	Thr	Ala	Asn	Arg 1000		Ser	Pro	Val	Arg 1005		Leu	Cys
Ser	Ser 1010	Ser)	Thr	Thr	Asn	Asn 1015		Pro	Tyr	Ala	Lys 1020		Pro	Asp	Thr
Pro 1025	Arg 5	Pro	Val	Met	Thr 1030	Asp)	Gln	Phe	Pro	Lys 1035		Leu	Gly	Leu	Ser 1040
Arg	Ser	Pro	Val	Val	Ser	Glu	Gln	Thr	Ala	Lys	Gly	Pro	Ile	Ala	Ala

Gly Thr Ser Asp His Phe Thr Lys Pro Ser Pro Arg Ala Asp Val Phe Gln Arg Gln Arg Ile Pro Asp Ser Tyr Ala Arg Pro Leu Leu Thr Pro Ala Pro Leu Asp Ser Gly Pro Gly Pro Phe Lys Thr Pro Met Gln Pro Pro Pro Ser Ser Gln Asp Pro Tyr Glv Ser Val Ser Gln Ala Ser Arg Arg Leu Ser Val Asp Pro Tyr Glu Arg Pro Ala Leu Thr Pro Arg Pro Ile Asp Asn Phe Ser His Asn Gln Ser Asn Asp Pro Tyr Ser Gln Pro Pro Leu Thr Pro His Pro Ala Val Asn Glu Ser Phe Ala His Pro Ser Arg Ala Phe Ser Gln Pro Gly Thr Ile Ser Arg Pro Thr Ser Gln Asp Pro Tyr Ser Gln Pro Pro Gly Thr Pro Arg Pro Val Val Asp Ser Tyr Ser Gln Ser Ser Gly Thr Ala Arg Ser Asn Thr Asp Pro Tyr Ser Gln Pro Pro Gly Thr Pro Arg Pro Thr Thr Val Asp Pro Tyr Ser Gln Gln Pro Gln Thr Pro Arg Pro Ser Thr Gln Thr Asp Leu Phe Val Thr Pro Val Thr Asn Gln Arg His Ser Asp Pro Tyr Ala His Pro Pro Gly Thr Pro Arg Pro Gly Ile Ser Val Pro Tyr Ser Gln Pro Pro Ala Thr Pro Arg Pro Arg Ile Ser Glu Gly Phe Thr Arg Ser Ser Met Thr Arg Pro Val Leu Met Pro Asn Gln Asp Pro Phe Leu Gln Ala Ala Gln Asn Arg Gly Pro Ala Leu Pro Gly Pro Leu Val Arg Pro Pro Asp Thr Cys Ser Gln Thr Pro Arg Pro Pro Gly Pro Gly Leu Ser Asp Thr Phe Ser Arg Val Ser Pro Ser Ala Ala Arg Asp Pro Tyr Asp Gln Ser Pro Met Thr

WO 02/092001 PCT/US02/14975

Pro Arg Ser Gln Ser Asp Ser Phe Gly Thr Ser Gln Thr Ala His Asp

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Ser Asn Ser Pro Met His Ser Gln Gly Gln Gln Phe Ser Gly Val Ser

Gln Leu Pro Gly Pro Val Pro Thr Ser Gly Val Thr Asp Thr Gln Asn

Thr Val Asn Met Ala Gln Ala Asp Thr Glu Lys Leu Arg Gln Arg Gln

Lys Leu Arg Glu Ile Ile Leu Gln Gln Gln Gln Lys Lys Ile Ala

Gly Arg Gln Glu Lys Gly Ser Gln Asp Ser Pro Ala Val Pro His Pro

Gly Pro Leu Gln His Trp Gln Pro Glu Asn Val Asn Gln Ala Phe Thr

Arg Pro Pro Pro Pro Tyr Pro Gly Asn Ile Arg Ser Pro Val Ala Pro

Pro Leu Gly Pro Arg Tyr Ala Val Phe Pro Lys Asp Gln Arg Gly Pro

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Phe Gly Phe Pro Gly Gly Ser His Gly Thr Met Pro Ser Gln Glu Arg

Phe Leu Val Pro Pro Gln Gln Ile Gln Gly Ser Gly Val Ser Pro Gln

Leu Arg Arg Ser Val Ser Val Asp Met Pro Arg Pro Leu Asn Asn Ser

Gln Met Asn Asn Pro Val Gly Leu Pro Gln His Phe Ser Pro Gln Ser

Leu Pro Val Gln Gln His Asn Ile Leu Gly Gln Ala Tyr Ile Glu Leu

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WO 02/092001 PCT/US02/14975

Arg Pro Pro Gln Gly Leu Pro Asn Gln Leu Pro Val His Pro Asp Leu 1665 1670 1686

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Ser Glu Ala Pro Leu Ser Thr Ser Val Pro Ser Glu Thr Thr Ser Asp 1715 1720 1725

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Leu Glu Thr Asn Asp Pro Asn Leu Asp Asp Leu Leu Arg Ser Gly Glu 1795 1800 1805

Phe Asp Ile Ile Ala Tyr Thr Asp Pro Glu Leu Asp Met Gly Asp Lys 1810 1815 1820

Lys Ser Met Phe Asn Glu Glu Leu Asp Leu Pro Ile Asp Asp Lys Leu 1825 1830 1835 1846

Asp Asn Gln Cys Val Ser Val Glu Pro Lys Lys Lys Glu Gln Glu Asn 1845 1850 1850

Lys Thr Leu Val Leu Ser Asp Lys His Ser Pro Gln Lys Lys Ser Thr

Val Thr Asn Glu Val Lys Thr Glu Val Leu Ser Pro Asn Ser Lys Val 1875 1880 1885

Glu Ser Lys Cys Glu Thr Glu Lys Asn Asp Glu Asn Lys Asp Asn Val 1890 1895 1900

Asp Thr Pro Cys Ser Gln Ala Ser Ala His Ser Asp Leu Asn Asp Gly 1905 1910 1915 1920

Glu Lys Thr Ser Leu His Pro Cys Asp Pro Asp Leu Phe Glu Lys Arg 1925 1930 1935

Thr Asn Arg Glu Thr Ala Gly Pro Ser Ala Asn Val Ile Gln Ala Ser 1940 1945 1950

Thr Gln Leu Pro Ala Gln Asp Val Ile Asn Ser Cys Gly Ile Thr Gly 1955 1960 1965

Ser Thr Pro Val Leu Ser Ser Leu Leu Ala Asn Glu Lys Ser Asp Asn

Ser Asp Ile Arg Pro Ser Gly Ser Pro Pro Pro Pro Thr Leu Pro Ala Ser Pro Ser Asn His Val Ser Ser Leu Pro Pro Phe Ile Ala Pro Pro Gly Arg Val Leu Asp Asn Ala Met Asn Ser Asn Val Thr Val Val Ser Arg Val Asn His Val Phe Ser Gln Gly Val Gln Val Asn Pro Gly Leu Ile Pro Gly Gln Ser Thr Val Asn His Ser Leu Gly Thr Gly Lys Pro Ala Thr Gln Thr Gly Pro Gln Thr Ser Gln Ser Glv Thr Ser Ser Met Ser Gly Pro Gln Gln Leu Met Ile Pro Gln Thr Leu Ala Gln Gln Asn Arg Glu Arg Pro Leu Leu Leu Glu Glu Gln Pro Leu Leu Gln Asp Leu Leu Asp Gln Glu Arg Gln Glu Gln Gln Gln Arg Gln Met Gln Ala Met Ile Arg Gln Arg Ser Glu Pro Phe Phe Pro Asn Ile Asp Phe Asp Ala Ile Thr Asp Pro Ile Met Lys Ala Lys Met Val Ala Leu Lys Gly Ile Asn Lys Val Met Ala Gln Asn Asn Leu Gly Met Pro Pro Met Val Met Ser Arg Phe Pro Phe Met Gly Gln Val Val Thr Gly Thr Gln Asn Ser Glu Gly Gln Asn Leu Gly Pro Gln Ala Ile Pro Gln Asp Gly Ser Ile Thr His Gln Ile Ser Arg Pro Asn Pro Pro Asn Phe Gly Pro Gly Phe Val Asn Asp Ser Gln Arg Lys Gln Tyr Glu Glu Trp Leu Gln Glu Thr Gln Gln Leu Leu Gln Met Gln Gln Lys Tyr Leu Glu Gln Ile Gly Ala His Arg Lys Ser Lys Lys Ala Leu Ser Ala Lys Gln Arg

Thr Ala Lys Lys Ala Gly Arg Glu Phe Pro Glu Glu Asp Ala Glu Gln

Leu Lys His Val Thr Glu Gln Gln Ser Met Val Gln Lys Gln Leu Glu 2290 2295 2300

Gln Ile Arg Lys Gln Gln Lys Glu His Ala Glu Leu Ile Glu Asp Tyr 2305 2310 2315 2320

Arg Ile Lys Gln Gln Gln Cys Ala Met Ala Pro Pro Thr Met Met 2325 2330 2335

Pro Ser Val Gln Pro Gln Pro Pro Leu Ile Pro Gly Ala Thr Pro Pro 2340 2345 2350

Thr Met Ser Gln Pro Thr Phe Pro Met Val Pro Gln Gln Leu Gln His 2355 2360 2365

Gln Gln His Thr Thr Val Ile Ser Gly His Thr Ser Pro Val Arg Met 2370 2375 2380

Pro Ser Leu Pro Gly Trp Gln Pro Asn Ser Ala Pro Ala His Leu Pro 2385 2390 2395 2400

Leu Asn Pro Pro Arg Ile Gln Pro Pro Ile Ala Gln Leu Pro Ile Lys 2405 2410 2415

Thr Cys Thr Pro Ala Pro Gly Thr Val Ser Asn Ala Asn Pro Gln Ser 2420 2425 2430

Gly Pro Pro Pro Arg Val Glu Phe Asp Asp Asn Asn Pro Phe Ser Glu 2435 2440 2445

Ser Phe Gln Glu Arg Glu Arg Lys Glu Arg Leu Arg Glu Gln Gln Glu 2450 2455 2460

Arg Gln Arg Ile Gln Leu Met Gln Glu Val Asp Arg Gln Arg Ala Leu 2465 2470 2475 2480

Gln Gln Arg Met Glu Met Glu Gln His Gly Met Val Gly Ser Glu Ile 2485 2490 2495

Leu Pro Cys Asp Phe Met Gln Pro Leu Gly Pro Leu Gln Gln Ser Pro $2515 \hspace{1.5cm} 2520 \hspace{1.5cm} 2525 \hspace{1.5cm}$

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Glu Arg Arg Gln Val Gly Pro Pro Ser Phe Val Pro Asp Ser Pro Ser 2565 2570 2575

Ile Pro Val Gly Ser Pro Asn Phe Ser Ser Val Lys Gln Gly His Gly 2580 2585 2590

WO 02/092001 PCT/US02/14975

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Pro Ser Thr Pro Asn Met Ala Ala Gly Gln Leu Cys Thr Glu Leu Glu 2725 2730 2735

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Lys His Leu Leu Lys Asn Lys Lys Ser Ser Ser Leu Leu Asn Gln Lys 2835 2840 2845

Pro Glu Gly Ser Ile Cys Ser Glu Asp Asp Cys Thr Lys Asp Asn Lys 2850 2855 2860

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Gly Glu Lys Ala Ala Pro Arg Ser Lys Lys Arg Lys Lys Asp Glu Glu Glu Lys Gln Ala Met Tyr Ser Ser Thr Asp Thr Phe Thr His Leu Lys Gln Val Arg Gln Leu Ser Leu Leu Pro Leu Met Glu Pro Ile Ile Glv Val Asn Phe Ala His Phe Leu Pro Tyr Gly Ser Gly Gln Phe Asn Ser Gly Asn Arg Leu Glu Gly Thr Phe Gly Ser Ala Thr Leu Glu Gly Val Ser Asp Tvr Tvr Ser Gln Leu Ile Tvr Lvs Gln Asn Asn Leu Ser Asn Pro Pro Thr Pro Pro Ala Ser Leu Pro Pro Thr Pro Pro Pro Met Ala Cys Gln Lys Met Ala Asn Gly Phe Ala Thr Thr Glu Glu Leu Ala Gly Lys Ala Gly Val Leu Val Ser His Glu Val Thr Lys Thr Leu Gly Pro Lys Pro Phe Gln Leu Pro Phe Arg Pro Gln Asp Asp Leu Leu Ala Arg Ala Leu Ala Gln Gly Pro Lys Thr Val Asp Val Pro Ala Ser Leu Pro Thr Pro Pro His Asn Asn Gln Glu Glu Leu Arq Ile Gln Asp His Cys Gly Asp Arg Asp Thr Pro Asp Ser Phe Val Pro Ser Ser Ser Pro Glu Ser Val Val Gly Val Glu Val Ser Arg Tyr Pro Asp Leu Ser Leu Val Lys Glu Glu Pro Pro Glu Pro Val Pro Ser Pro Ile Ile Pro Ile Leu Pro Ser Thr Ala Gly Lys Ser Ser Glu Ser Arg Arg Asn Asp Ile Lys Thr Glu Pro Gly Thr Leu Tyr Phe Ala Ser Pro Phe Gly Pro Ser Pro Asn Gly Pro Arg Ser Gly Leu Ile Ser Val Ala Ile Thr Leu His Pro

Thr Ala Ala Glu Asn Ile Ser Ser Val Val Ala Ala Phe Ser Asp Leu

PCT/US02/14975

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Val Pro Ser Met Gly Leu Val Ser Ser His Arg Ile Asn Pro Gly Leu

Glu Tyr Arg Gln His Leu Leu Leu Arg Gly Pro Pro Pro Gly Ser Ala

Asn Pro Pro Arg Leu Val Ser Ser Tyr Arg Leu Lys Gln Pro Asn Val

Pro Phe Pro Pro Thr Ser Asn Gly Leu Ser Gly Tyr Lys Asp Ser Ser

His Gly Ile Ala Glu Ser Ala Ala Leu Arg Pro Gln Trp Cys Cys His

Cys Lys Val Val Ile Leu Gly Ser Gly Val Arg Lys Ser Phe Lys Asp

Leu Thr Leu Leu Asn Lys Asp Ser Arg Glu Ser Thr Lys Arg Val Glu

Lys Asp Ile Val Phe Cys Ser Asn Asn Cys Phe Ile Leu Tyr Ser Ser

Thr Ala Gln Ala Lys Asn Ser Glu Asn Lys Glu Ser Ile Pro Ser Leu

Pro Gln Ser Pro Met Arg Glu Thr Pro Ser Lys Ala Phe His Gln Tyr

Ser Asn Asn Ile Ser Thr Leu Asp Val His Cys Leu Pro Gln Leu Pro

Glu Lys Ala Ser Pro Pro Ala Ser Pro Pro Ile Ala Phe Pro Pro Ala

Phe Glu Ala Ala Gln Val Glu Ala Lys Pro Asp Glu Leu Lys Val Thr

Val Lys Leu Lys Pro Arg Leu Arg Ala Val His Gly Gly Phe Glu Asp

Cys Arg Pro Leu Asn Lys Lys Trp Arg Gly Met Lys Trp Lys Lys Trp

Ser Ile His Ile Val Ile Pro Lys Gly Thr Phe Lys Pro Pro Cys Glu

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Asp Pro Val Pro Lys Asp Tyr Arg Lys Cys Cys Phe Cys His Glu Glu

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Met His Lys Pro Lys Gly Ile His Glu Glu Glu Leu Ser Tyr Phe Ala 3620 3625 3630

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Phe His Ser Pro Lys Ala Leu Phe Pro Val Gly Tyr Glu Ala Ser Arg 3685 3690 3695

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Glu Met Leu Gln Leu Phe Pro Ala Tyr Leu Lys Gly Glu Asp Leu Phe 3765 3770 3775

Gly Leu Thr Val Ser Ala Val Ala Arg Ile Ala Glu Ser Leu Pro Gly 3780 3785 3790

Val Glu Ala Cys Glu Asn Tyr Thr Phe Arg Tyr Gly Arg Asn Pro Leu 3795 3800 3805

Met Glu Leu Pro Leu Ala Val Asn Pro Thr Gly Cys Ala Arg Ser Glu 3810 3815 3820

Pro Lys Met Ser Ala His Val Lys Arg Pro His Thr Leu Asn Ser Thr

3825 3830 3835 3840 Ser Thr Ser Lys Ser Phe Gln Ser Thr Val Thr Gly Glu Leu Asn Ala Pro Tyr Ser Lys Gln Phe Val His Ser Lys Ser Ser Gln Tyr Arg Lys Met Lys Thr Glu Trp Lys Ser Asn Val Tyr Leu Ala Arg Ser Arg Ile 3875 3880 Gln Gly Leu Gly Leu Tyr Ala Ala Arg Asp Ile Glu Lys His Thr Met 3895 Val Ile Glu Tyr Ile Gly Thr Ile Ile Arg Asn Glu Val Ala Asn Arg 3905 3910 3915 Lys Glu Lys Leu Tyr Glu Ser Gln Asn Arg Gly Val Tyr Met Phe Arg 3925 3930 Met Asp Asn Asp His Val Ile Asp Ala Thr Leu Thr Gly Gly Pro Ala 3945 Arg Tyr Ile Asn His Ser Cys Ala Pro Asn Cys Val Ala Glu Val Val 3955 Thr Phe Glu Arg Gly His Lys Ile Ile Ile Ser Ser Ser Arg Arg Ile 3975 Gln Lys Gly Glu Glu Leu Cys Tyr Asp Tyr Lys Phe Asp Phe Glu Asp 3985 3990 3995 Asp Gln His Lys Ile Pro Cys His Cys Gly Ala Val Asn Cys Arg Lys 4005 4010 Trp Met Asn <210> 426 <211> 174 <212> PRT <213> Homo sapiens

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Val Ser Leu Arg Gln Gly Pro His Gly Asp Gly Ala Arg Arg Pro Arg

Val Thr Ala Pro Leu Pro Gln Ala Ala His Cys Val Leu Ala Gln Asp 35

Pro Glu Asn Gln Ala Leu Ala Arg Phe Tyr Cys Tyr Thr Glu Arg Thr

Ile Ala Lys Arg Leu Val Leu Arg Arg Asp Pro Ser Val Lys Arg Thr

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Ala Ile His Ser Ser Ser Ala Asp Ala Thr Ser Ser Ser Asn Tyr His 1050

Ser Phe Val Thr Ala Ser Ser Thr Ser Val Asp Asp Ala Leu Pro Leu 1060

Pro Leu Pro Val Pro Gln Pro Lys His Ala Ser Gln Lys Thr Val Tyr 1075 1080

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Val Thr Gln Leu Gln Pro Tyr Phe Glu Asn Gly Arg Val His Tyr Arg 1250 1255 1260

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Ala Leu Cys Asp Val Asp Ala Tyr Gly Thr Val Gln Leu Arg Pro Leu 1285 1290 1295

His Arg Leu Pro Asn Arg Asp Phe Ala Phe Tyr Asn Pro Arg Leu Gln
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Gly Lys Ser Leu Tyr Ser Tyr Ala Gly Leu Ala Pro Arg Pro Arg Ala 1315 1320 1325

Asn Val Thr Gly Tyr Phe Ser Pro Asn Asp His Asn Val Val Ser Met 1330 1340

Pro Pro Ala Ala Asp Val Lys His Thr Tyr Thr Ser Trp Asp Leu Glu 1345 1350 1355 1360

Asp Met Glu Lys Tyr Arg Met Gln Ser Ile Arg Arg Glu Ser Arg Ala 1365 1370 1375

Arg Gln Lys Val Lys Gly Pro Val Met Ser Gln Tyr Asp Asn Met Thr 1380 1385 1390

Pro Ala Val Gln Asp Asp Leu Gly Gly Ile Tyr Val Ile His Leu Arg $1395 \hspace{1.5cm} 1400 \hspace{1.5cm} 1405$

Ser Lys Ser Asp Pro Gly Lys Thr Gly Leu Leu Ser Val Ala Glu Gly 1410 1420

Lys Glu Ser Arg His Ala Ala Lys Ala Ile Ser Pro Glu Gly Glu Asp 1425 1430 1435 1440

Arg Phe Tyr Arg Arg His Pro Glu Ala Glu Met Asp Arg Ala His His 1445 \$1450\$

His Gly Gly His Gly Ser Thr Gln Pro Glu Lys Pro Ser Leu Pro Gln $1460 \hspace{1.5cm} 1465 \hspace{1.5cm} 1470 \hspace{1.5cm}$

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Leu Pro Glu His Arg Ala His Gln Glu Ala Ser His Arg Gln Phe Cys 1490 1495 1500

Glu Ser Lys Asn Gly Pro Pro Tyr Pro Gln Gly Ala Gly Gln Leu Asp 1505 1510 1515 1520

Tyr Gly Ser Lys Gly Ile Pro Asp Thr Ser Glu Pro Val Ser Tyr His 1525 1530 1535

Asn Ser Gly Val Lys Tyr Ala Ala Ser Gly Gln Glu Ser Leu Arg Leu 1540 1545 1550

Asn His Lys Glu Val Arg Leu Ser Lys Glu Met Glu Arg Pro Trp Val 1555 1560 1565

Arg Gln Pro Ser Ala Pro Glu Lys His Ser Arg Asp Cys Tyr Lys Glu 1570 1575 1580

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Thr Val Val Ser Gln Tyr Asp Asn Leu Glu Asp Tyr His Ser Leu Pro 1635 1640 1645

Gln His Gln Arg Gly Val Phe Gly Gly Gly Met Gly Thr Tyr Val 1650 1660

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Phe Glu Ala Arg Ile Ala Leu Leu Pro Leu Leu Gln Ala Glu Thr Asp

Arq Arq Thr Leu Gln Met Leu Arq Glu Asn Leu Glu Glu Glu Ala Ile

Ile Met Lys Val Pro Asp Trp Lys Val Gly Glu Ser Val Phe His

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Val Arg Gly Tyr Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Glu Ala 100 105 110

Val Lys Tyr Gln Gly Pro Arg Asp Phe Gln Thr Leu Glu Asn Trp Met 115 120 125

Leu Gln Thr Leu Asn Glu Glu Pro Val Thr Pro Glu Pro Glu Val Glu 130 135 140

Pro Pro Ser Ala Pro Glu Leu Lys Gln Gly Leu Tyr Glu Leu Ser Ala 145 150 155 160

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Gln	Leu	Ala 195	Leu	Gly	Leu	Glu	His 200	Ser	Glu	Thr	Val	Lys 205	Ile	Gly	Lys
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Glu Ser Val Cys Leu Asp Arg Cys Val Ser Lys Tyr Leu Asp Ile His 50 55 60

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Asn Pro Ala Ile Leu Ser Glu Ala Ser Ala Pro Ile Pro His Asp Gly $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Asn Leu Tyr Pro Arg Leu Tyr Pro Glu Leu Ser Gln Tyr Met Gly Leu 50 60

Ser Leu Asn Glu Glu Glu Ile Arg Ala Asn Val Ala Val Val Ser Gly 65 70 75 80

Ala Pro Leu Gln Gly Gln Leu Val Ala Arg Pro Ser Ser Ile Asn Tyr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Met Val Ala Pro Val Thr Gly Asn Asp Val Gly Ile Arg Arg Ala Glu 100 105 110

Ile Lys Gln Gly Ile Arg Glu Val Ile Leu Cys Lys Asp Gln Asp Gly 115 120 125

Lys Ile Gly Leu Arg Leu Lys Ser Ile Asp Asn Gly Ile Phe Val Gln 130 135 140

Leu Val Gln Ala Asn Ser Pro Ala Ser Leu Val Gly Leu Arg Phe Gly 145 150 155 160

Asp Gln Val Leu Gln Ile Asn Gly Glu Asn Cys Ala Gly Trp Ser Ser 165 170 175

Asp Lys Ala His Lys Val Leu Lys Gln Ala Phe Gly Glu Lys Ile Thr $180 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$

Met Thr Ile Arg Asp Arg Pro Phe Glu Arg Thr Ile Thr Met His Lys 195 200 205

Asp Ser Thr Gly His Val Gly Phe Ile Phe Lys Asn Gly Lys Ile Thr Ser Ile Val Lys Asp Ser Ser Ala Ala Arg Asn Gly Leu Leu Thr Glu 230 His Asn Ile Cys Glu Ile Asn Gly Gln Asn Val Ile Gly Leu Lys Asp 250 Ser Gln Ile Ala Asp Ile Leu Ser Thr Ser Gly Thr Val Val Thr Ile 265 Thr Ile Met Pro Ala Phe Ile Phe Glu His Ile Ile Lys Arg Met Ala Pro Ser Ile Met Lys Ser Leu Met Asp His Thr Ile Pro Glu Val 295 <210> 439 <211> 378 <212> PRT <213> Homo sapiens <400> 439 Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly Gly His Arg Gly Gly Glu Met Ala Phe Ser Gly Ser Gln Ala Pro Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly Ser Trp Gly Pro Glu Glu Arg Lys Thr 105 His Met Pro Phe Gln Lys Gly Met Pro Phe Asp Leu Cys Phe Leu Val 115 120 Gln Ser Ser Asp Phe Lys Val Met Val Asn Gly Ile Leu Phe Val Gln 135 Tyr Phe His Arg Val Pro Phe His Arg Val Asp Thr Ile Ser Val Asn 145 150 155

Gly Ser Val Gln Leu Ser Tyr Ile Ser Phe Gln Asn Pro Arq Thr Val

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Pro Val Gln Pro Ala Phe Ser Thr Val Pro Phe Ser Gln Pro Val Cys 180 Phe Pro Pro Arg Pro Arg Gly Arg Arg Gln Lys Pro Pro Gly Val Trp 200 Pro Ala Asn Pro Ala Pro Ile Thr Gln Thr Val Ile His Thr Val Gln 215 Ser Ala Pro Gly Gln Met Phe Ser Thr Pro Ala Ile Pro Pro Met Met 225 230 Tyr Pro His Pro Ala Tyr Pro Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser Ile Leu Leu Ser Gly Thr Val Leu Pro 265 Ser Ala Gln Arg Phe His Ile Asn Leu Cys Ser Gly Asn His Ile Ala 275 280 Phe His Leu Asn Pro Arg Phe Asp Glu Asn Ala Val Val Arg Asn Thr 295 300 Gln Ile Asp Asn Ser Trp Gly Ser Glu Glu Arg Ser Leu Pro Arg Lys 305 310 320 Met Pro Phe Val Arg Gly Gln Ser Phe Ser Val Trp Ile Leu Cys Glu 330 Ala His Cys Leu Lys Val Ala Val Asp Gly Gln His Leu Phe Glu Tyr 345 Tyr His Arg Leu Arg Asn Leu Pro Thr Ile Asn Arg Leu Glu Val Gly 355 360 Gly Asp Ile Gln Leu Thr His Val Gln Thr 370 375 <210> 440 <211> 2239 <212> DNA <213> Homo sapiens <400> 440 ggaggttgaa gtgagcagag atcatgccag cctgggtgac agtgagactc tgtctcaaac 60 catagatttt atcatattct ggattttttg gattcttttg ttttctcatc actggattca 180 ggaaagcctg ttgtqtccac catctccaaa qgaggttacc tqcaqqqaaa tqttaacqqq 240 aggetgeett ceetgggeaa caaggageea cetgggeagg aggeettte aggaagagae 300 gccttttcag gaagagacgc cttttcagga agagagaaag tgcagctgaa gaggaaagtc 360 actttactga ggggagtctc cattatcatt ggcaccatca ttggagcagg aatcttcatc 420 tetectaagg gegtgeteea qaacaegge agegtgggea tgtetetgae catetggaeg 480 gtgtgtgggg tcctgtcact atttggagct ttgtcttatg ctgaattggg aacaactata 540 aagaaatctg gaggtcatta cacatatatt ttggaagtct ttggtccatt accagctttt 600

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tatccaagca tcagctttct ctttatacat ctacactgca tggcctgcac caaataagga 360
actgaaccag gggtatgttt ttacctccac agctgcctcc ttccatcana gcaccttgat 420
gaacttaatg totagtcaca cgtcattggc atgttttctc cccagcattt aattacaaag 480
ctttctttct ttggatagga tcagttctta agagcagccc cggtaactgg aggaatggga 540
gccgttttga tganaaaaat gggtttggtg ttcaggatct ccaattataa atgtagtctc 600
tcagcaccac attccgtaaa gatgatttcc caagtaacgg tatttgacta agttgctcca 660
gagtgttagg ggcaaaccac agttagtaag ctccttatga acaaccccca tatcaagtac 720
tttgtccatt tgcaggca
<210> 445
<211> 716
<212> DNA
<213> Homo sapiens
<400> 445
geggeegeta gtgeteeage tegegeteeg eesteaggea cageateeec aegggeetee 60
acgccaacct gtccgagggc cgcccgtgg gtccggcccg ccgtggcgcc tcatcgctgc 120
toggooogga aggottotto ottggoaaga tgggattoog ggaggoggtg goggooggag 180
acgtggattt gcctcaggtg cggagccgca gctacaggag gatgctcgcg aggacccca 240
gageteegee eggagggtae tgtgaggeeg ttaggagetg geggtggatg actteegeat 300
tcaaacactg gagccatcac acggaagcac gaggagggta tcctcggcag ctactcccgg 360
tegeteaagg tgtetetege tegeceteta ggtgegggag gagetegagg cecaactaag 420
ctgcttccgg gagctgctgg gcagggcccc cacgcacgcg gacgggcacc agcacgtgca 480
cgtgctccca ggtggacaga cgccttcgtg ggcctgagca cttgcggccg gcacatgtcc 540
gctcaccgcg tgtccggggc cctggcgcgg gtcctggaag gtaccctagc gggccacacc 600
ctgacagecg agetgatgge geacceegge tacceeagtg tgeeteecac eggeggetge 660
ggtgaaggcc ccgacgcttt ctctttgctc ttgggaagcg gcttgcattg agcttg
<210> 446
<211> 641
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 4, 67, 125, 157, 273, 364, 381, 408, 481, 506, 520, 626
<223> n = A,T,C or G
<400> 446
getneagete gegeteegee eteaggeaca geateceeae gggeeteeae geeaacetgt 60
ccgaggnccg ccccgtgggt ccggcccgcc gtggcgcctc atcgctgctc ggcccggaaq 120
gcttnttcct tggcaagatg ggattccggg aggcggnggc ggccggagac gtggatttgc 180
```

```
ctcaggtgcg gagccgcagc tacaggagga tgctcgcgaq gacccccaqa gctccgcccq 240
gagggtactg tgaggccgtt aggagctggc ggnggatgac ttccgcattc aaacactgga 300
gccatcacac ggaagcacga qqaqqqtatc ctcqqcaqct actcccqqtc qctcaaqqtq 360
tetntegete gecetetagg ngegggagga getegaggee caactaanet getteeggga 420
getgetggge agggeececa egeaegegga egggeaceag eaegtgeaeg tgeteecagg 480
nggacagacg cettegtggg cetgancact tgcggccggn acatgttece tcacccgcqg 540
gtccgggccc ttggcgcggg tcctggaagg taccctacgg gccacaccct gacagccgaa 600
ctgatggccc accccggcta ccccangtgt gcctccaccc g
<210> 447
<211> 652
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 540, 580
<223> n = A,T,C or G
<400> 447
gaattogaac cocttogott ttagaaaatt gtatatgcag ctggatgaag gcagcotcac 60
ctttaatgcc aacccagatg agggagtgaa ctactttatg tccaagggta tcctggatga 120
ttcgccaaag gaaatagcaa agtttatctt ctgtacaaga acactaaatt ggaaaaaact 180
gagaatctat cttgatgaaa ggagagatgt cttggatgac cttgtaacat tgcataattt 240
tagaaatcag ttcttgccaa atgcactgag agaatttttt cgtcatatcc atgcccctga 300
agagogtgga gagtatottg aaactottat aacaaagtto toacatagat totgtgottg 360
caaccctgat ttaatgcgag aacttggcct tagtcctgat gctgtctatg tactgtgcta 420
ctctttgatt ctactttcca ttgacctcac tagccctcat gtgaagaata aaatgtcaaa 480
aaqqqaattt attcqaaata ccccqcqcqc tqctcaaaat attaqtqaaq aattttqtan 540
ggcatcttta tgacaatatc tacccttatt gggccatggn ggctggcata aaaaagcacc 600
aattqqctaa qqactttcaa qttttttact ttcaqaactt aaaaqcttac cc
                                                                  652
<210> 448
<211> 677
<212> DNA
<213> Homo sapiens
<400> 448
gaattcgaac cccttcggcg cctggcagag gtgaaggact ccctggacat cgaggtcaag 60
cagaacttca ttgaccccct ccagaacctg tgcgagaaag acctgaagga gatccagcac 120
cacctgaaga aactggaggg ccgccgcctg gactttgact acaagaagaa gcggcagggc 180
aagatccccq atqaqqaqct acgccaggcq ctggaqaaqt tcgaqqaqtc caaqqaqqtq 240
gcagaaacca gcatgcacaa cctcctggag actgacatcg agcaggtgag tcagctctcg 300
gccctggtgg atgcacagct ggactaccac cggcaggccg tgcagatcct ggacgagctg 360
gcggagaagc tcaagcgcag gatgcgggaa gcttcctcac gccctaagcg ggagtataag 420
ccgaagcccc gggagccctt tgaccttgga gagcctgagc agtccaacgg gggcttcccc 480
tgcaccacag cccccaagat cgcagcttca tcgtctttcc gatcttccga caagcccatc 540
cggaccccta gccggagcat gccgcccctg gaccagccga gctgcaaggc gctgtacgac 600
ttcgagcccg agaacgacgg ggagctgggc ttcatgaggg cgacgtcatc acgctgacca 660
accagatoga tgagaac
<210> 449
<211> 603
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

```
<222> 10, 213, 287, 574
<223> n = A,T,C or G
<400> 449
ttttttgtan aaagagacat ttaatacttc tgtttacaaa attcaggcgt acatttcagt 60
ttgccctgga ccgtgcccaa agctgtgtgc tcatctctgc gcccctcatg tacttctgac 120
gagggggtq cagggcaggq cagagcagaq cctggggtcc ggaggcttca ctggaccaca 180
gggggagggg aatgtgaatg tggcctggcc canagaactc cccatttcat cgattttqca 240
ttgggcgata gaggaagcag atgtcggggc tgcctgcctt ggtctanagg agatggctgg 300
ggccacttcc cacagggtga agtggcagcg gctcagcaag gggagcctgg ccaccagggg 360
ctqqqacatq cqctcactqq aacctttqtq cttqqccctc qqcaqcqcqq ctqtqqtcc 420
gtgtgaggtg tgctgqqqtq qqqtgtgggt qqctggtqgt qgcaqcttqt qccaqaqtqa 480
cacaggcete cetgggttgg gatgggggca agttaaaaaag etgaaaaggt acttggettt 540
ctgagggggg gcttgggagc aggcctgca gganaccatq ttctctqtcc tcagcagatc 600
cac
<210> 450
<211> 678
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 29
<223> n = A.T.C or G
<400> 450
gaattcgaac cccttcgcat caatataana tgccacccat ctgcagttaa tttcttttcc 60
tcatcatgtg attaaaagtg gtgattcagt gggaactggg aatgttttta gctggtggta 120
gaaggctgcc tacactgggc actgttttag attctcatat catttaaaca gcaaggaggt 180
tcagggaaga ataaccqtaq ccttgggtaa tccactaggg cttttgtgag taggagagct 240
gataceteae attettagea ggtgaaaaet tgeeatgatg gaaacagata gtgaagagtt 300
actgacgtat cccaaattat atgctgtgac ataaattccc agcatgccca gccctgattt 360
ctgagttcat aagtaattct agtgaacctt agtaggaatt ctgggtaaga aaatgaggtt 420
qccattggtc ttgtttgcat caccaaqacc aqacatccag aagagcccct caccttgaaa 480
agcagacaga ttttaaatta acceceteet teecaeteae etteatetee etaagagttt 540
tggccattta attccacatt ttgaaaggaa tacattggtg aaatttggga agagaatctg 600
tgctatgcaa tgtttcatta aaatcttcag tttttcaagt ctctctaaaa ataatttqta 660
gatctatctt ggatggat
<210> 451
<211> 651
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 30, 60, 351, 354, 419, 498, 540, 582
<223> n = A,T,C or G
<400> 451
tttttcatca acaaaaatca agcattttcn tttttttgaa acaagaaaag cgcatcgtan 60
aaaccaagat tetgtacaat attetaacat tatatgtaca taaaattata ttaeteataa 120
ctatattgaa aagtottatt tgtagaatat ggctggcaac aaagaaagac ccataccatt 180
tagcgtttga agcagggcag qtagcaagag aacattagca aagacacctt tgtgcctgga 240
tacacaatcc tgctactaag ttatgtgact aaccagcaca ctctaagttc tgtggtttgt 300
togttgtttc acattctagt agggaattct gcagcaggcg atgcgaaaaa naanacatgg 360
tcaaatgaaa tgtgaaatgc tgtttaaaat ctgcatattg gctatgataa tgggtttgng 420
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```
aatccaagtt gcattggaag ttcactcatt ctccattcat tatgcatgcc tccagtgatt 480
taatgaattt cagcaggngg aaaagacagc tttgaacaga tcagatgggc tgtgagtcan 540
attettgatt ctttttcctc atttggctcc tgaatgttgc anaaaactgg ttttgtacac 600
tggggaagga gagagtgaag accetecagt tggtteetea gteageteeg t
<210> 452
<211> 679
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 30, 31
<223> n = A,T,C or G
<400> 452
gaattcgaac cccttcgcat tgctcagccn nctaccactg ctaagagcca tctccaccag 60
aagcotggcc agacotggaa gaacaaagag catcatotot otgacagaga gtttgtgttc 120
aaagaacctc agcaggtagt acgtagagct cctgagccac gagtgattga cagagaggt 180
gtgtatgaaa tcagcctgtc acccacaggt gtatctaggg tctgtttgta tcctggcttt 240
gttgacgtga aagaagctga ctggatattg gaacagcttt gtcaagatgt tccctggaaa 300
cagaggaccg gcatcagaga ggatataact tatcagcaac caagacttac agcatggtat 360
ggagaacttc cttacactta ttcaagaatc actatggaac caaatcctca ctggcaccct 420
gtgctgcgca cactaaagaa ccgcattgaa gagaacactg gccacacctt caactcctta 480
ctctgcaatc tttatcgcaa tgagaaggac agcgtggact ggcacagtga tgatgaaccc 540
tcactaggga ggtqccccat tattqcttca ctaaqttttq qtqccacacq cacatttqaq 600
atgagaaaga agccaccacc agaagagaat ggagactaca catatqtqqa aaqaqtqaaq 660
ataccettgg atcatggta
                                                                  679
<210> 453
<211> 630
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 30, 31, 39
<223> n = A,T,C or G
<400> 453
gaattcgaac cccttcggaa ggccaagggn ntagaaggng gctccggccc cagctgtcgt 60
gaagaagcag gaggctaaga aagtggtgaa tcccctgttt gagaaaaggc ctaagaattt 120
tggcattgga caggacatcc agcccaaaag agacctcacc cgctttgtga aatggccccg 180
ctatatcagg ttgcagcggc agagagccat cctctataag cggctgaaag tgcctcctqc 240
gattaaccag ttcacccagg ccctggaccg ccaaacagct actcagctgc ttaagctggc 300
ccacaagtac agaccagaga caaagcaaga gaagaagcag agactgttgg cccgggccqa 360
gaagaaggct gctggcaaag gggacgtccc aacgaagaga ccacctgtcc ttcgagcagg 420
agttaacacc cgtcaccacc ttggtggaga acaagaaagc tcagctggtg gtgattgcac 480
acgacgtgga teccategag etggttgtet tettgeetge eetgtgtegt aaaatggggg 540
tcccttactg cattatcaag ggaaaggcaa gactgggacg tctagtccac aggaagacct 600
gcaccactgt cgccttccac aggtgaactc
<210> 454
<211> 677
<212> DNA
<213> Homo sapiens
<220>
```

```
<221> misc_feature
<222> 29
<223> n = A.T.C or G
<400> 454
qaattcqaac cccttcqccc qcatqcqqna catccccttq qccccaqqqt caqactqqcq 60
cgatctgccc aacatcgagg tgcqqctctc agacggcacc atggccagga agctgcggta 120
tacccaccat gacaggaaga acggccgcag cagctctggg gccctccgtg gggtctgctc 180
ctgcgtggaa gccggcaaag cctgcgaccc cgcagccagg cagttcaaca ccctcatccc 240
ctggtgcctg ccccacaccg ggaaccggca caaccactgg gctggcctct atggaaggct 300
cqaqtqqqac qqcttcttca qcacaaccqt caccaacccc qaqcccatqq qcaaqcaqqq 360
ccgcgtgctc cacccagagc agcaccgtgt ggtgagcgtg cgggagtgtg cccgctccca 420
qqqcttccct qacacctacc qqctcttcqq caacatcctq qacaaqcacc qqcaqqtqqq 480
caatgoogtg ccaccgccc tggcaaagcc attggcttgg agatcaagct ttgtattgtt 540
qqccaaaqcc cqaqaqatq cctcaqctaa aataaaqqaq qaqqaaqctq ctaaqqacta 600
gttctgcctt cccgtcaccc ctgtttctgg caccaggaat cccccacaat gcacttgatg 660
gtggggtttt aacatgt
<210> 455
<211> 598
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 465, 541, 556
<223> n = A,T,C or G
<400> 455
ttttttggtt tataggagag atttatttga agaaatatta caacatataa aaactacata 60
aagtettaat tteeacteat acagtggtag atttgatata atgeataata aaaaactttt 120
aaaatccaga atgcacaaag tactgcacaa tttgatcact aaatcattag ttgataagcg 180
aacctcacac aacagcttca tgtcaqccaa ggccacaaac accatgtacc acacatgtga 240
acqqacaqat tqacatqtta aaaacacaac atcaqtqcat qttqqqqatt cctqqtqcca 300
gaaacagggg tgacggagg gcaqaactag tccttagcag cttcctcctc ctttatttta 360
gctgaggcac tctctcgggc tttggccaac atacaaagct tgatctccaa gccaatggct 420
ttggccaggg gcggtggcac ggcattgccc acctgccggt gcttngtcca ggatgttgcc 480
cqaaqaqccq qtaqqtqqtc aaqqqaaqcc cctqqqqaaq cqqqcacact cccqqacqct 540
naccacagg tgctgntttt gggtggagca ccgcggcctt gcttgcccat gggctcgg
<210> 456
<211> 574
<212> DNA
<213> Homo sapiens
<400> 456
ggaattegaa cecetteggg geggggagee cegtagaace gagggggteg geeegggggt 60
cccgggggag qtggaqatqq tqaaqqqqa qccqttcqac qtggqcccqc qctacacqca 120
gttgcagtac atcggcgagg gcgcgtacgg catggtcagc tcggcctatg accacgtgcg 180
caagactege gtggccatea agaagateag cecettegaa cateagacet actgccageg 240
cacgeteegg gagateeaga teetgetgeg etteegeeat gagaatgtea teggeateeg 300
agacattotg cgggcgtcca ccctggaagc catgagagat gtctacattg tgcaggacct 360
gatggagact gacctgtaca agttgctgaa aagccagcag ctgagcaatg accatatctg 420
ctactteete taccagatee tgegggeet caagtacate caeteegeea acgtgeteea 480
ccgagatcta aagccctcca acctgcttca tcaacaccac ctggcgacct ttaaaatttg 540
tgaatttccg gcctgqcccc cgqattqccc qaat
```

<210> 457

```
<211> 546
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 234, 534
<223> n = A,T,C or G
<400> 457
ttttttgaca catctctata tttatatatt agacgggtca gggaggtggc agggggcgcg 60
ggctctccac qcccccaqc tccacttctq ctcaccacac acaqaaqcaq cqaqqqacq 120
cgaagtgaca getttgacag ggaggggatt eggeeeggee tggeteetea gggatgetag 180
cccttgagac taaggaatgt tccttcaggg aaactagggt ggggtttgaa tganatgagg 240
ggggcaggca tggccctgag tccctactca gcgcccccca ccctccacct ctgcccttca 300
gcaggttggg gcagccagaa cccttccatt ccagaactgc cagagactgg gacgctgggg 360
aaggtaaggg cgcagcagca gcagcgggag attgaactgg ggccacctga gctcccgagg 420
ccccgtgggg agggcgggtg gggaggaaaa ggccttggcc tgcctgaagc tggaggcctc 480
agcaaaggag agaggtqqcc aggcccatqc tccaccccqq cctqqqctqc caanqqtccc 540
gggctg
<210> 458
<211> 674
<212> DNA
<213> Homo sapiens
<400> 458
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aaacaccttc caaatgagtc ggagaaaatg tottgcagta ttatgggtaa aatagcaaag 120
agcttgggaa tacagtttgc taatatcaag tccttaacaa cgaccattct tcattcaaga 180
ttagttgtgt ataaatacat gcttcttcag gagttgactt agaaaacaag caaacaaaca 240
aacatcagaa actatttaca actgggagca atccttgaag aacataaaga atataaatat 300
caacaaaggc tgaaaactct tttttagatt aaagatcaaa tggacatgtc atcggaatgt 360
attgtatggc tcttgattaa atcctggagc aaagtggaga gtgaggaaca actgtaaaga 420
atgtgaatac ggactgtgta ttagataaca gtaccataaa tttcctggat gggataatta 480
tgttgtgact atgtaagaga atattttgcc cttagaagat atatgatgaa gcatttagaa 540
gtaaagtatc atgacatctt gcaaataact ttcaagtgat tcagccagat atataaaaat 600
tatatataac acattatata atttatattt atataattat aatacattat ataatttata 660
cattataatt atat
                                                                   674
<210> 459
<211> 682
<212> DNA
<213> Homo sapiens
<400> 459
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ctgcattctc ccagctgcca ggccgccagg gctttgccac tggtataatt tataacacqa 120
ctaattaaaa tgaatttgct tgcaataagg ttctgtgtgc tatttgtggg agaggagtta 180
ttaaaatttt cagtacagta atagtaaact tgaatgcaaa gtaataataa tcatacattt 240
ttaattacat gtttaatacc catttggcta atgtagaact attctgaaaa ttacttggga 300
tcagcacaat gtctttttgt gcttagtagt atccaaagac atccttctga atgggcttag 360
caatatgcac tgtcatcaag atacagctgt ttgatgacag acacacagtg tgttcctatg 420
atactttgca caagatcagc tatgacaaat acaagttcat tttgcttatt gcaggcaaat 480
aatgtccttt gcaggaactt ggatggagcc agaggccatt attctaagtg aaatacctca 540
ggagtggaaa accaaatacc atatgttctc acttacaagt gggaactaag ctatgggtac 600
acaaacgcat atagagtaat ggactctggc gactcatact acatattgag tacaatgtac 660
```

actacttggg tgatgggtgc ac

```
<210> 460
<211> 663
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 628
<223> n = A,T,C or G
<400> 460
gaattogaac cocttegegg ggegegegag eggegecage teggggeage qqaacceaqa 60
gaagetgagg gggeggtage ggeggegaeg gegaegaega egaeteeege gegtgtgeee 120
agoctottcc cgccqcaqcc gcccttttcc tccctccctt acgtccccqa qtqcqqcaqt 180
acceptett teccareer regrettet cearacetet eggegeggt gageetatt 240
cccagaggca ggtggtgctg accctgtaac ccaaaggagg aaacagctgg ctaagctcat 300
cattgttact ggtgggcacc atgtccttga agcttcaggc aagcaatgta accaacaaga 360
atgaccccaa gtccatcaac tctcgagtct tcattggaaa cctcaacaca gctctggtga 420
agaaatcaga tgtggagacc atcttctcta agtatggccg tgtggccggc tgttctgtqc 480
acaagggcta tgcctttgtt cagtactcca atgagcgcca tgcccgggca gctgtgctgg 540
gagagaatgg gcgggtgctg gccgggcaga ccctggacat caacatggct ggagagccta 600
agcctgacag acccaagggg ctaaaganaa qcagcatctg qcatatacag gctcttcgac 660
<210> 461
<211> 612
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 19, 44, 134, 151, 199, 258, 337, 422, 491, 564, 590, 594
<223> n = A.T.C or G
<400> 461
tttttttggga tccaatctnt ttattgtcag ggtcccctcc ctgnggcccc ccgccaaacc 60
tatagaaaaa acccaagcct qqqaqtqtcc tqqqqaqqqq aqqtaqtatq qqqaaacccc 120
tgtgctctac cctntggcct gggcagtgca nacagggagg gctcatgggg aaggagtagg 180
ccagtaactc cacctgcana ggacatggca ctggctggga tgcgttgggg gaggaggcgc 240
ctgctgccag ctttcctntg gtacccgctq qggggtggca tccagggttg ggtgcccgqc 300
ttgaggcctg gggcagcgat gcccttcacc tgctggnggc cattgctcct gtcaggctgc 360
ttactgcaag gccccatcat ccqcqtctqt qtcctqqctg tgttccagct cttcctcqct 420
gngtgtcagg agcccttcct catcgccgtc gtctcgggtc cgtgcttccc cctggggcag 480
geetgeetea naagttgtgt tetettgggg ggetggtgge eggttgttge caeegeaceg 540
caccaccact ggcaccggca ccgntgcacc accaccgccg ccgccgccgn tggngccacc 600
ttcatcaccc tt
                                                                  612
<210> 462
<211> 672
<212> DNA
<213> Homo sapiens
<400> 462
qaatteqaac ceetteqqat qqaaqqqee qqqqeaqeqt eqqqqaaaqq aaqqqeegqa 60
ggcgcggcgg cgggcggccg agaggggcgg cggcggcggc ggcggcgggg ttcccgcgcc 120
geggageeeg geeegagage egegteeaeg tteetgeete etgeteeege egeeetgggg 180
cgccgccatg acgcccgatc tgctcaactt cagccccaga tgtcaccaag ctctcggact 240
```

```
ctaacaagga gaacgcgctg cacagctaca gcacccagaa gggccccctg aaggcaggg 300
agcagcgggc gggctctgag gtcatcagcc ggggtggccc tcggaaggcg gacgggcagc 360
gtCaggeett ggactacgtg gagetetege egetgaceca ggetteeeeg cagegggee 420
gcaccccage cegeactect gacegeeetg gccaageagg aggagetgga gegggacetg 480
gcccagcgct ccgaggagcg gcgcaagtgg tttgaggcca cagacagcag gaccccagag 540
gtgcctgctg gtgaggggcc gcgccggggc ctgggtgccc cctgactgag gaccaqcaaa 600
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gagaataacc gg
<210> 463
<211> 562
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 40, 41, 501
<223> n = A,T,C or G
<400> 463
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acatataaaa tootgaagaa ggtgcaaggt gagacccagt gcgaggggcg tgctcagata 120
tgcagtgtgt gtgtgtgtgt gtgtgtgtgt gtatccgtgt gtacatgtgt gcacgtgtgt 180
agtgcacgtg tggcccacag agggtgggga gaaagcttgg ctttttactt ccatccagga 300
gggaaggagg gcggctggtc ctccagcctg gagggtctgc agctgggcgg gacctctact 360
cagccaggct gttgcgcatc gactccttct cctggagggc ggccatggca agacgcaggt 420
geteetteag etgetegate teeegeteag acceptett gatgtggete aactecacat 480
agacqtcctq qtactttccc nagqtqaaqc qcttqtcctt ctqcatcatc tqqaqctcqt 540
cccggaggca ctgcaccttc ct
                                                                562
<210> 464
<211> 553
<212> DNA
<213> Homo sapiens
<400> 464
gaattegaac ceetteggga ceaggaacce aggagageat ggceaegetg egeeggette 60
gggaggegec geggeactta etggtttgeg agaaateeaa etteggeaac cacaagtege 120
gccaccggca tcttqtqcaq acqcactact ataactacaq qqtttcattt ctcattcctq 180
aatgtgggat actatcggaa gaactgaaaa acctggtcat gaacactgga ccctattact 240
ttgtgaagaa tttacctctt catgaattaa ttacacctga attcatcagt acctttataa 300
agaaaggtto ttgctatgca ctaacataca atacacatat tgatqaaqat aatactgttg 360
ccctgctacc aaatgggaaa ttaattttgt cactggataa agacacttat gaagaaactg 420
gacttcaggg tcatccatct cagttttctg gcagaaaaat tatqaaattt agttcagaag 480
aatcgacaat gatgtcatat ttttccaagt accaaattca ggagcatcag ccaaaagtag 540
cactgagccc gtt
                                                                553
<210> 465
<211> 383
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 50, 73, 121, 161, 196, 233, 240, 255, 265, 267, 285, 374
<223> n = A.T.C or G
```

```
<400> 465
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ntctcctcct tttcqaaaac catgttcatt tttttcccaa naaacagggc tgtctgcaaa 180
qccttqaacq qacaqnqtaa cccatqqaqc taacttcqqt tcatcaaaqt agnqacaqan 240
atgttccaat agganacaga tottntntgg aagtatgaag ccagngattg tacacaaata 300
agettttgcc accactgtgc ttggctcagg acagcaatag gttgatatga aattattagg 360
ctcattattt aggncgacat tac
<210> 466
<211> 673
<212> DNA
<213> Homo sapiens
<400> 466
quattegaac coettegete cotectgeac geaatggtgg cetatgatec egatgagaa 60
atcgccgccc accaggccct gcagcacccc tacttccaag aacagaggaa aacagagaag 120
cgqqctctqq qcaqccacaq aaaaqctqqc tttccqqaqc accctqtqqc accqqaacca 180
ctcagtaaca gctgccagat ttccaaggag ggcagaaagc agaaacagtc cctaaagcaa 240
qaqqaqqacc qtcccaaqaq acqaqqaccq qcctatqtca tqqaactqcc caaactaaaq 300
ctttcgggag tggtcagact gtcgtcttac tccagcccca cgctgcagtc cgtgcttgqa 360
tctggaacaa atggaagagt gccggtgctg agacccttga agtgcatccc tgcgagcaag 420
aaggtagege gqaaccaget tetetqaeqq eqetqetett egacccaqee eaggeeqeea 480
ctgaattttg tgtctgtaat ttttctttga cagacagatc cgcagaagga ccttaagcct 540
qccccqcaqc aqtqtcqcct qcccaccata qtqcqqaaaq qcqqaaqata actqaqcaqc 600
accgtcgtct cgacttcgga ggcaacacca agcccgaccg ggccaggcct gggtgatctg 660
ctqctgagac gcc
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<210> 467
<211> 373
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 25, 44, 53, 65, 115, 145, 149, 212, 238, 270, 289
<223> n = A,T,C or G
<400> 467
tttttactqq aacqacaqct tattntttaa taaaaqtcaq qqqnqtcaqc aqnqtcactq 60
gtaanacatg atggcgctcc acgactgacc agcagcgctg ggaagggaca cgcanaaccc 120
accttccaac cacgcccaac acatnacana aatgcctqct cqtttqtttt qattcatata 180
caaagttaca aagtatttcc tgccccaaat tnttaacgaa aatgaaagaa aaccctanaa 240
tgcgggggtt ttacaagtat attagcccan aacatcctag gcagctgcnc gggccgcggg 300
tgcggcaggg cgcagggcaa cacccaaagc cccggccagc gcgaaacgga cgcaggcgca 360
tocccaqccc tcc
                                                                  373
<210> 468
<211> 573
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 62, 485
<223> n = A,T,C or G
<400> 468
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gaattogaac coettogotg otgtoctact tgatgottgt cactgtcatg atgtggccc 60
tngctgtgta ccaccgactg tgggatcgag catatgtgcg gctgaagcca gctctgcagc 120
ggctagactt cagtgtccgt qqctacatqa tqtccaaqca qaqaqaqaqa caattacgcc 180
gcagagctct ccacccagaa cgagccatgg acaaccacag tgacagcgaa gaggagcttq 240
ctgccttctg tcctcagctg gacgattcta ctgttgccag ggaattggcc atcacagact 300
ctgagcactc agacgctgaa gtctcctgta cagacaatgg cacattcaat ctttcaaggg 360
gccaaacacc tctaacggaa ggctctgaag acctagatgg tcacagtgat ccagaggaat 420
cctttgccag agaccttcca gacttccctt ccattaatat ggatcctgct ggcctggatg 480
atgangacga cactagcatt ggcatgccca gcttgatgta ccgttctccg ccaggggct 540
gaggageece aaggeeceae etgeeageee ggg
<210> 469
<211> 635
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 3, 52, 83, 84, 551
<223> n = A,T,C or G
<400> 469
tonogatota gaactaggtt ggacaggott gotcaagttt caccagagtt antactggcc 60
tetgttegea gagtttttag ttnnacactg cagaattgge agactacacg gtttatggaa 120
gttgaagtag caataagatt gctgtatatg ttggcagaag ctcttccagt atctcatggt 180
gctcacttct caggtgatgt ttcaaaagct agtgctttqc aggatatgat gcgaactqta 240
agtatactgg agataatttt gaccataaat tictgtttic agtataagct aatgggagtt 300
ccttaattgt tagagcttag tatatgttaa taccggggca ttttgatgtt gcaataaata 360
agaaqaqqtt tootaacttt ttootgatot agotggtaac atcaggagto agttoctato 420
agcatacatc tgtgacattg gagttcttcg aaactgttgt tagatatgaa aagtttttca 480
caqttqaacc tcaqcacatt ccatqtqtac taatqqcttt cttaqatcac agaggtctqc 540
ggcattccag ngcaaaagtt cggagcagga cggcttacct gttttctaga tttgtcaaat 600
ctctcaataa gcaaatgaat cctttccttg aggat
                                                                  635
<210> 470
<211> 593
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 31, 138, 140, 226, 469, 484, 567
<223> n = A,T,C or G
<400> 470
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cttctagtta aaaccttngn tgctgtcctc tcaaactata tttataaaaa tttgctaggg 180
ccaaatccat acttgcagaa taattcatca aattttattt ttaagngaaa agtaaccttt 240
caggicattic agcagicatac attgacaatc taggigtatat atgitatgitat gitticitatt 300
gtatgtctat atatgtatgt ggggaggaca ggagtgaatg ttcacacact tttcttgcgt 360
actcaactaa attggagaat gtttctgaag aaaattggat gaaattagct gctgagattg 420
agtttctgcc ttaaaatctg aaacaaaaaa agggacaaat tgctggtang atctactgac 480
tgtngccatc accagaacac ttagtttctt cccagacatg aatttcctga caggctctga 540
gccagaaaca cactgtqqqc qtqcatntqq qtcaccctqq atatgcctcc act
<210> 471
<211> 581
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<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 13, 349
<223> n = A,T,C or G
<400> 471
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cacaatagcc gaggcaatca acgttctctt agtgtgtgat ctcgtccaaa acaccaaata 120
aataggttta ggaataacct caaataaatt gtaatttaac ttcqcccaaa attatacatc 180
ctctactgct cttccctgct cctgtaaaga tactagcggg aggggagaaa gctcaaatga 240
ctctqtaatt taqaattaca accagagaaq aaatacttca aqcacaataa aqacqttcca 300
ttgaagagcg acattcattc tggaatgttt gttttgaaaa caactcttnt gggggaattc 360
aaaaqqtact qaacaaaqca acataaaqta aqttttqqqt tqttttqcaa aataaaaata 420
tacaattgag tggaccagat ggcaaaaaca taccaattac aatctgaatg ctatatttaa 480
aaccettaaa ttetgaagge etgaatatea acaaacetat ttatgtttat gateetaaaa 540
agacattaaa tattattaaa cccccaactt ccaaaacata q
                                                                  581
<210> 472
<211> 674
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 31, 625
<223> n = A,T,C or G
<400> 472
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ggtccctcgg cttcctgcct cggaagcgca gcagcaggca tcgtgggaag gtgaagagct 120
tocotaaqqa tgaccogtoc aagcoggtoc acctcacago ottoctggga tacaaggotg 180
qcatqactca catcqtqcqq qaaqtcqaca qqccqqqatc caaqqtqaac aaqaaqqaqq 240
tggtggaggc tgtgaccatt gtagagacac cacccatggt ggttgtgggc attgtgggct 300
acqtqqaaac ccctcqaqqc ctccqqacct tcaaqactqt ctttqctqaq cacatcaqtq 360
atgaatgcaa gaggcgtttc tataagaatt ggcataaatc taagaagaag qcctttacca 420
aqtactqcaa qaaatqqcaq qatqaqqatq qcaaqaaqca qctqqaqaaq qacttcaqca 480
gcatgaagaa gtactgccaa gtcatccgtg tcattgccca cacccagatg cgcctgcttc 540
ctctgcgcca gaagaagccc acctgatgga gatccaggtg aacggaggca ctgtggccga 600
gaagctggac tgggccccgc gagangcttg agcacaggta cctgtgaacc aagtgtttgg 660
qcaqqatqaa aatq
<210> 473
<211> 646
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 10, 30, 73, 101, 163, 196, 206, 309, 325, 345
<223> n = A.T.C or G
<400> 473
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attaagctcc ttnttccttt gcaattcggt ctttcttcag nggtcccatg aatgctttct 120
tetectecat ggtetggaag eggeeatgge caaacttgga ggnggtgtea atgaacttaa 180
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ggtcaatctt ctccanagcc cgccgnttcg tctgcaccag caaggacttg cggagggtga 240
gcaccogctt cttggttccc accacacage ctttcagcat qacaaaqtca ttqqtcactt 300
caccatagng gacaaagcca cccanagggt tgatgctctt gtcanatagg tcatagtcag 360
tggaggcatt gttcttgatc agcttqccqt ccttgataaq qtagccctqq ccaatcttat 420
aaatottott gttgatotca gtgcggtgat ggtagcottt ctgcccaqcg cqtqccacaq 480
agaaqqctac acqaqcaqqa tqccatqccc caatacaqqc caccttqcqc aqqcctcqqt 540
gggtcttgcg gggcagcttc ttggtgtgcc aacgactggt gacccctttg tagcctttgc 600
ccttggtcac cccgatgacg tcgatcatct catcctgccc aaacac
<210> 474
<211> 544
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 32, 495
<223> n = A.T.C or G
<400> 474
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occocagtot coogoggotg otoccocagg catggcacag ggootogcot cactatggca 120
gcagcacggc acagcacgct cgacttcatg ctcggcgcca aagctgatgg tgagaccatt 180
ctaaaaggcc tccagtccat tttccaggag caggqgatgq cggaqtcqqt qcacacctqq 240
caggaccatg gctatttagc aacctacaca aacaagaacg gcagctttgc caatttgaga 300
atttacccac atggattggt gttgctggac cttcagagtt atgatggtga tgcgcaaggc 360
aaagaagaga togacagtat tttgaacaaa gtagaggaaa gaatgaaaga attgagtcag 420
gacaagtact gggcgggtga aacgattacc acccatagtg cgaggaggag ccatcgacag 480
atactggccc accgncgacg ggcgccttgg ttgaatatga catagaatga aqtqqtatat 540
gacg
                                                                  544
<210> 475
<211> 578
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 31
<223> n = A,T,C or G
<400> 475
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aacatctgtg ttggggagag tggagacaga ctgacgcgag cagccaaggt gttggagcag 120
ctcacagggc agacccctgt gttttccaaa gctagataca ctgtcagatc ctttggcatc 180
cggagaaatg aaaagattgc tgtccactgc acagttcgag gggccaaggc agaagaaatc 240
ttggagaagg gtctaaaggt gcgggagtat gagttaagaa aaaacaactt ctcagatact 300
ggaaactttg gttttgggat ccaggaacac atcgatctgg gtatcaaata tgacccaagc 360
attggtatet acggcetgga ettetatgtg gtgetgggta ggceaggttt cagcategea 420
gacaagaagc gcaggacagg ctgcattggg gccaaacaca gaatcagcaa agaggaggcc 480
atgcgctggt tccagcagaa gtatgatggg atcatccttc ctggcaaata aattcccgtt 540
tctatccaaa agagcaataa aaagttttca gtgaaaaa
<210> 476
<211> 619
<212> DNA
<213> Homo sapiens
```

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<220>
<221> misc feature
<222> 46, 51
<223> n = A,T,C or G
<400> 476
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tetteeceeg taaggaaatg geeggggage teeaggggae eeaggegeeg tegettegge 120
ggagcctggg ctgaccagcc aggacagcqq qqtaaacccq aacaattctq cqcqaqqtaq 180
ggaggccatg gcgtccggca gtaactggct ctccggggtg aatgtcgtgc tggtgatggc 240
ctacgggage ctggtgtttg tactgctatt tatttttgtg aagaggcaaa tcatgcgctt 300
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gaaagaggag attgatattc gactctccag ggttcaggat atcaagtatg agccccagct 420
ccttgcagat gatgatgcta gactactaca actggaaacc cagggaaatc aaagttgcta 480
caactatotg tataggatga aagetetgga tgccattegt acetetgaga teccatttea 540
ttctgaaggc cggcatcccc gttccttaat gggcaagaat tttccgcttc taccttqctg 600
gatettgega aacactagt
<210> 477
<211> 674
<212> DNA
<213> Homo sapiens
<400> 477
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ttaaagagga aaaagcaagt tgctccaqaa aaacctgtaa agaaacaaaa gacaggtgag 180
acttcqaqaq ccctqtcatc ttctaaacaq aqcaqcaqca qcaqaqatqa taacatqttt 240
cagattggga aaatgaggta cgttagtgtt cgcgatttta aaggcaaagt gctaattgat 300
attagagaat attggatgga tootgaaggt gaaatgaaac caggaagaaa aggtatttot 360
ttaaatccag aacaatggag ccagctgaag gaacagattt ctgacattga tgatgcagta 420
agaaaactgt aaaattcgag ccatataaat aaaacctgta ctgttctagt tgttttaatc 480
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gcagaagaat ttgtaagatg aatacttttt tttaatgtgc attattaaaa atattgagtg 600
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atcaagtaat acat
<210> 478
<211> 663
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 41, 639
<223> n = A,T,C or G
<400> 478
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aaqtcattat tttctqcaqa ctaaqcaata actacacaqa acactatqqq taaacaaaca 180
cctgctcagt tttcacacaa qccatgttqt ttatcaaatt agatctqcta atattqaata 240
cagtagattc ggtgattgta gttctcatat aagtatctta ttgagataac attttgacag 300
tttcactgac tttccaaata agcataccat aatcaaagaa aagaataaag agtgaagtaa 360
aaccattggg ggtggaagtc aaacaagcct agacatttga ttggaagaga aaagatcaaa 480
tatgaagttc acaaaccaaa agtttataaa ctcaatgcaa tacaaatcct ttttattgta 540
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aaagctgagt tgaaactaaa agatctataa aaactgttac ttttggcctt aaacagtacc 600

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cta
<210> 479
<211> 673
<212> DNA
<213> Homo sapiens
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tccttaacaa ggaaatcacc agtgtgggca gttccaagcg ggaagaggag gccaagtcag 180
aacttegage agecattgat eggtatgtge aagagaagat tgtgctagea geteaggeaa 240
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ggacagcaca gttagccctg gtggctcgag cccataatgt accagtgctg gtttgctgtg 600
aaacatacaa gttctqtgag cgtgtgcaga ctqatqcctt ttqtctctaa tgagctaqat 660
gaccctgatg atc
                                                                  673
<210> 480
<211> 203
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> 75, 84, 87, 89, 143, 183
<223> n = A,T,C or G
<400> 480
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gatgaagaag aggangaaga tgangananc tcctcggagg gcttggaggc tgaggactgg 120
qcccaqqqaq taqtqqaqqc cqntqqcaqc ttcqqqqctt atqqtqccca qqaqqaaqcc 180
cantgeceta etetgeattt eet
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<210> 481
<211> 482
<212> DNA
<213> Homo sapiens
<400> 481
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tcattctaaa gtcatggact tcactttcgg caacaaaact aaataaggat ggaacattta 360
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<210> 482
<211> 505
<212> DNA
<213> Homo sapiens
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cctaggtgat aaggtgactq qacccaqtaa accctttgtq tqctqqqqq ttttatqcct 120
tgtagaaccc agtgtgagca agatttgggt accctacata cattcagtag ccaggaaagg 180
gtgattggat tgccagactc tgcctgctgg caaaaggatg agctgtagaa gctgaagtcc 240
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atttggaatt gaatttttcc tctaattatt ctagggaaac cctgggctaa gaaaccaatg 360
taaaacctga tgaggtagtc tgtagtcaca ctgggtagag gtagaggcaa ccacaaaatt 420
attottaaga atgootooca ggogootgga agatgaaact ttotggtgaa tatgagotoa 480
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<210> 483
<211> 501
<212> DNA
<213> Homo sapiens
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gataaagcat tgttttaatg gtgaaaactt cacagatcac taatgtttct agaggttaac 120
ttcaagtggg caagctgggg tttttaggta gtcagtggcc tagttcctaa agccacagta 180
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ttaagacaaa ctgtatgtga ttaagttgtt ttgagggaac tgaagaacct gatgtagccc 300
ctggccagat aactgcctga tttctcagat attatttctc tgggaaacat tctacatagc 360
acaggagett aagagtggca ttatettete geettaattt eeagagatta tttetgtaet 420
gagaatcctg gaactactat gctaggaaat ttaaagctgc atggtctgtc ttgttttcat 480
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<210> 484
<211> 501
<212> DNA
<213> Homo sapiens
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c+
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cagaactcat tttggtggtg gcaagacaac tggctttggc atgatttatg attccctgga 240
ttatgcaaag aaaaatgaac ccaaacatag acttgcaaga catggcctgt atgagaagaa 300
aaagacctca agaaagcaac gaaaggaacg caagaacaga atgaagaaag tcaqqqqqac 360
tgcaaaggcc aatgttggtg ctggcaaaaa gccgaaggag taaaggtgct gcaatgatgt 420
tagctgtgg
                                                                   429
<210> 514
<211> 346
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 27
<223> n = A,T,C or G
<400> 514
aaaactttct ctacttattt agttttntcc tctgagttca accgctgctg gattcgtttg 60
gcataacttt gtgccatgga gttaatgata gataggatga agtaacacac catgacaacg 120
accaactttt caaacatcca ggacaaccag ttttctccct gtggtgtgcc catttcgctt 180
ttgtggtgaa gettetgeeg ttgageetee aggtaeteet gaaatggett etgeagagat 240
ggacctatgc cggggacagc actggaagca gggtacagta qcccaaaqaa aaaqacacat 300
ttqqqaaqaa aaqcaqqaaa aacqttaaaq aaaatqtact taccac
<210> 515
<211> 549
<212> DNA
<213> Homo sapiens
<400> 515
ctgaccagga ctgtgaagat gcggttccgc tgcgaagatg gggagacatt ttccaggaac 60
gtcatgatga tocagtcctg caaatgcaac tacaactgcc cgcatgccaa tgaagcagcg 120
tttcccttct acaggctgtt caatgacatt cacaaattta gggactaaat gctacctggg 180
tttccagggc acacctagac aaacaaggga gaagagtgtc agaatcagaa tcatggagaa 240
aatgggcggg ggtggtgtgg gtgatggaac tcattgtaga aaggaagcct tgctcattct 300
tgaggagcat taaggtattt cgaaactgcc aagggtgctg gtgcggatgg acactaatgc 360
agccacgatt ggagaatact ttqcttcata qtattqqaqc acatqttact qcttcatttt 420
ggagcttgtg gagttgatga ctttctgttt tctgtttgta aattatttgc taagcatatt 480
ttototaggo ttttttcctt ttggggttct acagtcgtaa aagaqataat aagattagtt 540
ggacagttt
<210> 516
<211> 382
<212> DNA
<213> Homo sapiens
<400> 516
ccgctcgtca gactccagca gccaagatgg tgaagcagat cgagagcaag actgcttttc 60
aggaageett ggaegetgea ggtgataaae ttgtagtagt tgaettetea geeaegtggt 120
gtgggccttg caaaatgatc aagcctttct ttcattccct ctctgaaaag tattccaacg 180
tgatactcct tgaagtagat gtggatgact gtcaggatgt tgcctcagag tgtgaagtca 240
aatgcatgcc aacattccag ttttttaaga agggacaaaa ggtgggtgaa ttttctggag 300
ccaataagga aaagcttgaa gccaccatta atgaattagt ctaatcatgt tttctqaaaa 360
tataaccagc cattggctat tt
<210> 517
<211> 323
<212> DNA
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<213> Homo sapiens
<220>
<221> misc_feature
<222> 26
<223> n = A.T.C or G
<400> 517
acqaqcqtaq qacqatqctt ctcttntqtc aqcctqcaac tqaqtcaqqa ttqaatactt 60
ggaccccagg tctggagatt gggatactgt aatgcttctt tgttattata acataaaagc 120
accactette tetteattte ctagetette taattaagaa aactattaag atgageaace 180
acatttagaa atgtttattg acaggtcttt tcaaataatg cttttctaat taatagccaa 240
agatttcata tctaactttq taaccaqaat tatacaqtaa qttqacacca cttaqattta 300
aaggcagaca gttttgcttt agt
<210> 518
<211> 605
<212> DNA
<213> Homo sapiens
<400> 518
ctggataccg aggctggggc cccacactgt ggaacaaacc cacagcttgc tcaggatcca 60
toccagaatc agcagacatc aaatccaacg cacagttcag aagatgtgaa gccaaaaacc 120
ctcccgctgg ataaaagcat taaccatcag atcgagtctc ccagtgaaag gcggaagtct 180
ataagtggaa agaagctgtg ctcttcctgt gggcttcctt tgggtaaagg agctgcaatg 240
atcatcgaga ccctcaatct ctattttcac atccagtgtt tcaggtgtgg aatttgtaaa 300
ggccagcttg gagatgcagt gagtgggacg gatgttagga ttcgaaatgg tctcctgaac 360
tgtaatgatt gctacatgcg atccagaagt gccgggcagc ctacaacatt gtgacacggc 420
tttcaagctt coggatcact caccatttct ttactgagag tgtcccctgg caactgctta 480
acaaaatccc aagctcaggg gcttctcagc atttacctaa tttctgaaag gctcttctga 540
ttttt
                                                                605
<210> 519
<211> 462
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 13, 48, 77, 99, 103, 137, 140, 171, 249, 298, 318, 320, 409,
437
<223> n = A,T,C or G
ctgctggtca tgnccttggc agtcttttgt gcaaaataag gcatattnga gctccacatt 60
aaccttgcgg caggcgncta cttgctctgc atgctgtanc agngcacgtc ctccttcccc 120
ttqqtqqtqt aqcctqnqan aggctqccca tacttatcca cacaccaqca naagcccqc 180
ttcctgcctt tggaagggcg acactgcttt ttcttataaa atcccttctt gtcacagttg 240
ggaatgtgna cacccctggg actcagcaca ttgaggaact tcaagtgatt cagtgtgnct 300
tocatttoto tacggcangn accatattot gtotocogot tagactogga ggagaagtto 360
tgggtatctg tgctctgaga ctcgtagtca actttgtagc gctggctqnc tttagcatgc 420
cctttcttga tgatgantat ctttgaatgg agggggtgga ac
                                                                462
<210> 520
<211> 565
<212> DNA
<213> Homo sapiens
```

```
<400> 520
actogtaata aatatgcatc cggaaacaag ataaaaggct acacctcgtc aggcatccta 60
caaaaatgtc tcaagtttta tatactctgc agcatttctg tgcgggggca gaaggggctg 120
ttgtgtattt tctgaagtgc tgtgacaaaa ggtcctttca catttctttg gagcattttt 180
gaaattgctt aactataatt aaacaactta agaaaagtaa caccaagctt taaagccatt 240
tttgctttgc tgtcattggt ccttatccaa tacagatcaa catatcatcc agcacagcca 300
agcacccact gaggccaagc agccttgtgg gacatgggcc ctgtcagagc aggccctact 360
ttcagttaaa tactttggag agtccaggat tctgtctctc tccctcaaca agattaatgc 420
cataagggaa gttgcaagcg tgttagaaac atttttaacc tgaaagtaaa gtgaacagaa 480
atatttttt ttccgagacc tctgctatgc accataatat taccatatca gggtttttag 540
cttcaaagtt gaaaaacaga ttggt
<210> 521
<211> 127
<212> DNA
<213> Homo sapiens
<400> 521
acatggotga cgtcaccgtc cagtgcaaaa tcaaaaaaga aagaaagaaa aaccccaaag 60
aaagaggatt tttcagtgga gaacatggtg ggctgattag gcttctatta gattacattc 120
<210> 522
<211> 642
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 26, 448
<223> n = A.T.C or G
<400> 522
actatgtttc gtaaattaaa taggtntggc ccagaagacc cactcaattg cctttgagat 60
taaaaaaaaa aaaaaaaag aaagaaaaat gcaagtttct ttcaaaataa agagacattt 120
ttcctagttt caggaatccc ccaaatcact tcctcattgg cttagtttaa agccaggaga 180
ctgataaaag ggctcagggt ttgttcttta attcattaac taaacattct gcttttatta 240
cagttaaatg gttcaagatg taacaactag tittaaaggt attigctcat tggtctggct 300
tagagacagg aagacatatg agcaataaaa aaaagattot tttgcattta ccaatttagc 360
aaaaatttat taaaactgaa taaagtgctg ttcttaagtg cttgaaagac gtaaaccaaa 420
gtgcacttta tctcatttat cttatggngg aaacacagga acaaattctc taagagactg 480
tgtttcttta gttgagaaga aacttcattg agtagctgtg atatgttcga tactaaggaa 540
aaactaaaca gatcaccttt gacatgcgtt gtagagtggg aataagagag ggcttttat 600
tttttcgttc atacgagtat tgatgaagat gatactaaat gc
                                                                  642
<210> 523
<211> 244
<212> DNA
<213> Homo sapiens
<400> 523
ctgaaggagc tgatccagaa ggagctcacc attggctcga agctgcagga tgctgaaatt 60
gcaaggctga tggaagactt ggaccggaac aaggaccagg aggtgaactt ccaggagtat 120
gtcaccttcc tgggggcctt ggctttgatc tacaatgaag ccctcaaggg ctgaaaataa 180
atagggaaga tggggacacc ctctgggggt cctctctqag tcaaatccag tggtggtaa 240
ttqt
```

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<210> 524
<211> 407
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 27, 28, 29
<223> n = A,T,C or G
<400> 524
acqttaqtqq tqatqtcacc caccotnnnq ctqqqqccqa qqatqctctc attqtqcact 60
gcgtagatga ctctggccac tggggcaqaq qtqqtttatt tacaqctctq qaaaaqcqat 120
ccgctgagcc aagaaaaata tatgagctgg ctgggaaaat gaaagacctg agtttgggag 180
gtgtcctttt atttcctgtt gatgataaag aatcaagaaa caaagggcaa gatttgttgg 240
ccttgattgt ggctcagcat cgtgatcgtt ccaatgtcct gtctggcatt aagatggcag 300
ccctagaaga gggcctgaag aagatatttt tagcagcaaa aaagaagaaa gcaagtgttc 360
atcttccacg tattggacat gccacgaaag gttttaactg gtatggt
<210> 525
<211> 276
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 26
<223> n = A.T.C or G
<400> 525
acacaggagg caacgtgttt cacatnatag acttcacttc caactccttg gaatgttcat 60
ttctttggct tacaggagag actagacagg aaggccaggc aatgcttagg caactaaaat 120
gaggttgggg gtaatgctaa cgtcaccctc acagggatgg ccacggggac tgttattcgc 180
aagctggttt tctagacctg ttagctggaa gcatggtgag caccatttct ggacgctcag 240
qccqtqtcqq qcttcaqtca tctccaccac acaqqt
<210> 526
<211> 288
<212> DNA
<213> Homo sapiens
<400> 526
acaattaccc accactggat ttgactcaga gaggaccccc aqaqqqtqtc tccatcttcc 60
ctatttattt tcagcccttg agggcttcat tgtagatcaa agccaaggcc cccaggaagg 120
tgacatactc ctgqaagttc acctcctggt ccttgttccq qtccaaqtct tccatcaqcc 180
ttgcaatttc agcatcctgc agcttcgagc caatggtgag ctccttctgg atcagctcct 240
tragetrett ettgetragg gtgtgettgt caccetecet geogragt
                                                                   288
<210> 527
<211> 412
<212> DNA
<213> Homo sapiens
<400> 527
actttgaget tattgttttt attetgtatt aaatatttte agggttttaa acactaatea 60
caaactgaat gacttgactt caaaagcaac aaccttaaag googtcattt cattagtatt 120
cctcattctg catcctggct tgaaaaacag ctctgttgaa tcacagtatc agtattttca 180
cacqtaaqca cattcqqacc atttccqtgg tttctcatqa qctqtqttca caqacctcag 240
```

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cagggcatcg catggaccgc aggagggcag attcggacca ctaggcctga aatgacattt 300
cactaaaagt ctccaaaaca tttctaagac tactaaggcc ttttatgtaa tttcttaaa 360
tgtgtatttc ttaagaattc aaatttgtaa taaaactatt tgtgtaaaaa aa
<210> 528
<211> 489
<212> DNA
<213> Homo sapiens
<400> 528
aaatgcaaaa agtcaaagta ggtaacaggt tggtaattaa agtgtcagga agactggaag 60
aggcaaaaat caagcagagt tccaataagt gtatgaaaaa aaaaatcata actgaaggtt 120
taagaaaagt ccccaaaggc agaatcacaa tatgagcagg aggaataaaa agcttttgga 180
tataccagge agetttetgt acquetcagg tttacaggtq aaatteetea gtttgagtte 240
agaagaattt gaacttattc cagcaaaata cttcaatctt tttattactg cctcctcccc 300
catcttcttt ctgggcaaag ggatgcttgg attaggtcca aagctcctgg caggggagg 360
ggccatgtgt cacagcataa cagacggttg caagtgcttt actgagcagg ggtcaggttt 420
gcagcaactc tgataggctc acacaatggc ctccatttta cagcccctcc ttggaggccc 480
actgatcag
                                                                  489
<210> 529
<211> 631
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 25, 26
<223> n = A,T,C or G
<400> 529
acttgcctaa agtttttata tctgnntctt ctgctgtaaa tcttcccttc ataaatgaaa 60
attitaataa aatcaactat gtggaaatat ataattaaag gaattcacta actgtgattt 120
tcataattta gggacattct cttctagtaa gcatggtgca ttatttacta gagatataat 180
atgcattaaa acaaaaaatg ttttctatca tcatagaaaa gtttgaggtc cagggataat 240
catctctgga tacattattt cctaccgtcq tqqtacacac tqaacacatt tqaqqcttat 300
gactggttct tttacttaca aatattgttt agacacattt tcaaatgtca caccaatcaa 360
taataataag gaatggattt tatctatatt gacagttett teaacettaa gagtgaactg 420
ctacaggtaa gattcaatca catttttcag gagaaagcta ttgagaccaa tatgctttgg 480
ttatctaata ggggtggaat qacttataat qctatttact ccaqqcaaaq aqaaaataca 540
acagacatag gatcttgatt tcaacgtagt tctcctccat gtgcatttct ctgtccgttt 600
aggcaatgcc aactggtcca ccagtgaaca t
                                                                  631
<210> 530
<211> 316
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 24, 26
<223> n = A,T,C or G
<400> 530
acacatttaa atgactcacg agantnaagt ttttttcaaa tatattaaga tcacaccacc 60
ttgttgttta tcgaaagata ttcaaggaga aagatctgac tctccaaact gcatctgaga 120
ttgccacttt aaacagacct catttcaaac atgcaacaac gccactggta ataaagcttt 180
ggaatgggtg ctcattctat tatttcacta caaacagcat agaaagcaaq aqaagttggg 240
```

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aatttattet aaaatagaat qqaqqttqte atetacagca qcacteetca eteetetqtt 300
gccattttta gcaagt
                                                                   316
<210> 531
<211> 296
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 37, 72, 104, 130
<223> n = A.T.C or G
<400> 531
aaaqtatcat ttatttgaaa aacatacatt atcattntgt ttttgatatt tgataatgaa 60
aaaaatottt gnttgtttat ttotgaaaaa gaactgtatt tagngattat tttagatagt 120
gatattatan cattcatctg tgtgtaaatt atttcatata gggaagagtt ctgatctgta 180
cctatggttc ttattgaaaa caacattgga tgtgcatttc tgtgatgtta tgaatacatt 240
totactttat tttgaaacat ttgccaaact aaatactgta acactgtata acattt
<210> 532
<211> 266
<212> DNA
<213> Homo sapiens
<400> 532
acatatgcac caaattccat tttagaaqtt tccatatcat tttcatagaa aacaaagttt 60
qaaaacaaqt aacatttaaa cacagcacgg tattctacca caactgaaac ttttttcttc 120
ttottottta caggactcaa caaaatctaa aaatgaacta tgctgtagat ttacctcatg 180
caaagatctt tatgttatct ctgaaaatga aaaggatggc cttttaagca cattttactg 240
ttttatacta ttatggcaac ttgtgt
<210> 533
<211> 289
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 25
<223> n = A,T,C or G
<400> 533
actcagaagt cacttttaat atcancgaca gaaatatttc actaattcaa ctgaggcaaa 60
tttcctttct agacaaagga cctagaaatt gagcatgcaa aacatccatc cattcattca 120
ttcaaataat taqccaattt taccqtcatt taattccacc agaaqcaaat actagaatat 180
ctagaagtag tttgggtaaa gaaacattta cattttaata ttgtgtaatg tcataaattt 240
ggggctaaaa taacaccagg tcaaatttga tccctttgta tgtgagggt
<210> 534
<211> 293
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 72, 260
<223> n = A,T,C or G
```

```
<400> 534
aaaataaaag gttctttaca agatgatacc ttaattacac tcccgcaaca caqccattat 60
tttattgtet anetecagtt atetgtattt tatgtaatgt aattgacagg atggetgetg 120
cagaatgetg gttgacacag ggattattat actgctattt ttccctgaat ttttttcctt 180
tgaattccaa ctgtggacct tttatatgtg ccttcacttt agctgtttgc cttaatctct 240
acageettge teteeggggn ggttaataaa atgcaacact tggcattttt atg
<210> 535
<211> 408
<212> DNA
<213> Homo sapiens
<400> 535
acttgaacac ttaaagagaa aaactctaaa taaagtcata gaggggatgg tagagatgac 60
cacagaaaat gaccacggag agtattatga agattgcaag attagacatt gatgatgtaa 120
attactccct ttctagataa aataatccat agatgtttat gaatcatatt tgtatgatta 180
ttgctgttac tattattttg acacattatt tattattatt gttgtcacta ttattaccat 240
taagatagca ggcgtaaaac tgtactggtt ccttcagtag tgagtatttc tcatagtgca 300
getttattta tetecaggat gtttttgtgg etgtatttga ttgatatgtg ettettetga 360
ttottgotaa tttocaacca tattgaataa atgtgatcaa gacaaaaa
<210> 536
<211> 184
<212> DNA
<213> Homo sapiens
<400> 536
acctctcatc aaggetetge ctacaggeac attgtgatgt atctctgeac tgatcaccta 60
ggtcatgtaa ctttttcta ggctctacct acgatggcat tgtgacataa ctctgcacta 120
atcatccacg tgatgtaact cttgtctagg atgtgcctaa attaactttt tgacgtaacc 180
                                                                  184
ctat
<210> 537
<211> 311
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 25
<223> n = A.T.C or G
<400> 537
ccacagttgt atcatatagc atctntaaca tttcatctag gattatctag tatagatctt 60
actatatttg gggctatgtt gtatacaatg ttaacaagaa catatcttct ctgcatatat 120
gtgtgaatta taaagaaaag catgagaatg actctaagtt caacaaacat gggtgaatct 180
ctatgtgete ccagtgteet ggatgggete cccagcaage catteeteet teetgttetg 240
atattactat totttttac attgtgctaa ggaggacaaa aggtgagaga tgaaaataaa 300
gccttgcctt t
                                                                  311
<210> 538
<211> 302
<212> DNA
<213> Homo sapiens
<400> 538
aaaataaaaa agcaaaaact cttqtqqtac ctaqtcaqat qqtaqacqaq ctqtctqctq 60
```

```
ccgcaggagc acctctatac aggacttaga agtagtatgt tattcctqqt taaqcaqqca 120
ttgctttqcc ctggaqcagc tattttaagc catctcagat tctgtctaaa ggggtttttt 180
gggaagacgt tttctttatc qccctqaqaa qatctacccc agggaqaatc tqaqacatct 240
tgcctacttt tctttattag ctttctcctc attcatttct tttatacctt tcctttttgg 300
<210> 539
<211> 396
<212> DNA
<213> Homo sapiens
<400> 539
actgtttatt tgctccttct cttcatgcct gtggctggat gtcccacaac actataagaa 60
atataagtca agccctttqt qttaagcaaq aactacagac tccatctttt cacccaaatc 120
atgaatgacc aataaaaagc aagttattcc agaggaagaa gcagcccttg aaatgttaag 180
gettaggett gaaaggtgaa gageaggaat tetetette aaateetaga geataaacce 240
atgtgtggcc aagtgagatc agccctcaag ggcacatgcc aagggcagag cagcccatqt 300
agacagette ggagggcatg ggggtqtagg gagttegggg tageteetea ttaactattt 360
gttgggtgag taaaggggtg aggeteagtg geaggt
                                                                   396
<210> 540
<211> 634
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 25, 29
<223> n = A,T,C or G
<400> 540
ccaaaaacaa gatgaccaga tttgntttna gcctgatgac cctacaggtc gtgctatgat 60
atggagtect catgggtaaa geaggaagag agtgggaaag agaaceacce cactetgtet 120
tcatatttqc atttcatgtt taacctccgg ctggaaatag aaagcattcc cttagagatg 180
aggataaaag aaagtttcag attcaacagg gggaagaaaa tggagattta atcctaaaac 240
tgtgacttgg ggaggtcagt catttacagt tagtcctgtg tctttcgact tctgtgatta 300
ttaaccccac tcactaccct gtttcagatg catttggaat accaaagatt aaatccttga 360
cataagatct catttgcaga aagcagatta aagaccatca qaaggaaatt atttaggttg 420
taatqcacaq qcaactqtqa qaaactqttq tqccaaaaat aqaattcctt ctaqtttttc 480
ttgttctcat ttgaaaggag aaaattccac tttgtttagc atttcaagct tttatgtatc 540
cateccatet aaaaactett caaactecae ttgtteagte tgaaatgeag etceetgtee 600
aagtgccttg gagaactcac agcagcacgc ctta
                                                                   634
<210> 541
<211> 221
<212> DNA
<213> Homo sapiens
<400> 541
cacacaagca gcagagacca tgggaaccct ctcagcccct ccctgcacac agcgcatcaa 60
atggaagggg ctcctqctca cagcatcact tttaaacttc tqqaacctqc ccaccactqc 120
ccaagtcacg attgaagccg agccaaccaa agtttccgag gggaaggatg ttcttctact 180
tgtccacaat ttgccccaga atcttaccgg ctacatctgg t
                                                                  221
<210> 542
<211> 287
<212> DNA
<213> Homo sapiens
```

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<400> 542
cctcttctac tatggcagga gatgtggcgt gctgttgcaa agttttcacg tcatcgtttc 60
ctggctagtt catttcatta agtggctaca tcctaacata tqcatttqqt caagqttqca 120
gaagaggact gaagattgac tgccaagcta gtttgggtga agttcactcc agcaagtctc 180
aggccacaat ggggtggttt ggtttggttt ccttttaact ttccttttgt tatttgcttt 240
totoctocac ctgtgtggta tattttttaa gcagaatttt attttt
<210> 543
<211> 274
<212> DNA
<213> Homo sapiens
<400> 543
acttgtgaaa cacagetgtt cttctgttct gcagacacgc cttcccctca gccacaccca 60
ggcacttaag cacaagcaga gtgcacagct gtccactggg ccattgtggt gtgagcttca 120
gatggtgaag catteteece agtgtatgte ttgtateega tatetaaege tttaaatgge 180
tactttggtt totgtotgta agttaagacc ttggatgtgg tttaattgtt tgtoctcaaa 240
aggaataaaa cttttctgct gataagataa aaaa
                                                                   274
<210> 544
<211> 307
<212> DNA
<213> Homo sapiens
<400> 544
ccaggtggtt gtcttattgc accatactcc ttgcttcctg atgctgggca atgaggcaga 60
tagcactggg tgtgagaatg atcaaggatc tggaccccaa agaatagact ggatggaaag 120
acaaactgca caggcagatg tttgcctcat aatagtcgta agtggagtcc tggaatttgg 180
acaagtgctg ttgggatata gtcaacttat totttgagta atgtgactaa aggaaaaaac 240
tttgactttg cccaggcatg aaattcttcc taatgtcaga acagagtgca acccagtcac 300
actataa
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<21.0> 545
<211> 570
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 191
<223> n = A,T,C or G
<400> 545
accttaqaaa tttgcaacca cctccctgaa agtcttctcc cacgttatta agtgcaatgt 60
ttatggtaaa tgtagaagca tcatgatgag gacgaagaga acgctgtcgt tcaggggagt 120
attttactac aaaattcagt agtgcaaatc ccttcgtata atagcctgca aagaccttca 180
gtgtaactgg ngcaatgaac tcccggataa aatgaagcca tacattctcc agatcaactt 240
gottcatgtg gatatcatca gttgggacat tttcataacc accagatata cggctatcat 300
gatgttttcc cccagaccat ttgccgtaat gttccatttc ttctaccaat tcatcacagg 360
ctttttcaga aaatatgggg aaccaaaaga catctggaca gggctgttca actatatttt 420
cagtgaaaat ctttgaataa tcacggttta tatacttttc cttccagtcc acaggatttt 480
caaaaatctg ccagaggtca ttgttataat gggaagtatt gtaattagca gtggataata 540
gccttccaaa ttcatgtcta ttagaaatgt
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<210> 546
<211> 589
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<212> DNA

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<213> Homo sapiens
<220>
<221> misc feature
<222> 565
<223> n = A,T,C or G
<400> 546
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ctttattctt caattattat cattatatta ttgtttttta atattttatt ttcttgacta 120
ggtattaagc ttttgtaatt atttttcagt agtcccacca cttcataggt ggaaggagtt 180
tggggttctt cctggtgcag gggctgaaat aacccagatg cccccaccct gccacatact 240
agatgcagcc catagttggc cccctagct tccagcagtc cactatctqc cagaggagca 300
agggtgcctt agaccgaagc caggggaaga agcatcttca taaaaaactt tcaaqatcca 360
aacattaatt tgtttttatt tattctqaga agttgaggca aatcagtatt cccaaggatg 420
gcgacaaggg cagccaagca gggcttagga tatcccagcc taccaatatg ctcattcgac 480
taactaggag ggtgagttgg coctgtotot tottttttot ggacotcagt ttccttcagt 540
ggagettggt aaaaatgeac tacentttga tttgataagg tataaatet
<210> 547
<211> 293
<212> DNA
<213> Homo sapiens
<400> 547
actoctatta ttgactgtag tcaatcaaac ataaaaaggt gaaagtaaaa tttaatttt 60
tacccttatt ttactgacca atatggaagt tcttggtatc tttaaggctg accttcctgg 120
tattgtgtaa tgattgaatg tatctaaact gtaataattt gaaactgaca aacataacct 180
totcagactt acaaaactat gttctttcta aagatacaga tttttattat tttattttqa 240
ctaggaagga tttataaata aatgtaatga aaaatctttg atcttaataa agt
<210> 548
<211> 98
<212> DNA
<213> Homo sapiens
<400> 548
aaacaaaqqt tqaqatqtaa aaqqtattaa attqatqttq ctqqactqtc ataqaaatta 60
cacccaaaga ggtatttatc tttacttttt tttgtaca
<210> 549
<211> 121
<212> DNA
<213> Homo sapiens
<400> 549
acatgcatat ttcaaagacc tgttaatggc gtccactttg gattcttaca tgaaacgatt 60
cagtgcacat tgtaagccta aggaccacgc aaaagggttt cccacatatt aagtattcag 120
                                                                   121
<210> 550
<211> 509
<212> DNA
<213> Homo sapiens
<400> 550
acaatagtat acattttata atgatgaact tataatgatt aagggacatt tctataaaaa 60
tactacaata gttttatgca caacttccca ttaaaaaatga qatttcttat ttgtttgtct 120
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gtttttactc tgggagtaat actttttaaa ttacctttac atatatagtc actggcatac 180
tgagaatata caatgatcct ggaaattgca gtaacaaaag cacacaacga ttatagtaac 240
tataagatac aataaaacaa ataaatgtga aagtagattc atgaaaatgt attcctttaa 300
aatattgttt teetacagge etatttaaca agatgtttea ttttactgta tattttgtag 360
ttaatataaa tgttgctcta atcagattgc ttaaaagcat ttttattata tttatgttgt 420
tqaactaata tatgaaataa qtaaatgtag ctcccacaag qtaaacttca ttqqtaagat 480
tgcactgttc tgattatgta agcatttgt
<210> 551
<211> 427
<212> DNA
<213> Homo sapiens
<400> 551
accatggtta tatgattaat cttgggacaa agaattttat agaaattttt aaacatctgg 60
aaaagaagct taagttttat catcettttt tttetegtga attettaaag gattatgett 120
taatqctqtt atctatctta ttgttcttga aaatacctgc attttttggt atcatgttca 180
accaacatca ttatgaaatt aattagattc ccatggccat aaaatggctt taaagaatat 240
atatatattt ttaaagtagc ttgagaagca aattggcagg taatatttca tacctaaatt 300
aagactotga cttggattgt gaattataat gatatgcccc ttttcttata aaaacaaaaa 360
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ggagtgc
<210> 552
<211> 340
<212> DNA
<213> Homo sapiens
<400> 552
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ctgtcaagag aaatggtcca ccgtgtgtgt ggaatgcagc catcacacat tagtttctga 120
gattgcttct gtcttggttt tatggggaga tatttccatt tctagcatag gcttcaaggc 180
gototaaata toogottgga aatactacaa aaacagtgtt toaaaactgo tgtatocaaa 240
ggaaggtgcc actogctgag ttgaatgcac acatcacaag gaagtttctg agaattcttc 300
tgtctagatt catacgaaga aatcccgttt ccaacgaagg
<210> 553
<211> 549
<212> DNA
<213> Homo sapiens
<400> 553
acttgagctg tgaggtcatc ggaatcccga cacctgtcct catctggaac aaggtaaaaa 60
ggggtcacta tggagttcaa aggacagaac tcctgcctgg tgaccgggac aacctggcca 120
ttcaqacccq qqqtqqccca gaaaagcatq aaqtaactqq ctqqqtqctq qtatctcctc 180
taagtaagga agatgctgga gaatatgagt gccatgcatc caattcccaa ggacaggctt 240
cagcatcagc aaaaattaca gtggttgatg ccttacatga aataccagtg aaaaaaggtg 300
aaggtgccga gctataaacc tccagaatat tattagtctq catgqttaaa agtagtcatq 360
tagttatatt cactgqtttt acacagagaa atacaaaata aagatcacac atcaagacta 480
tctacaaaaa tttattatat atttacagaa gaaaagcatg catatcatta aacaaataaa 540
atacttttt
<210> 554
<211> 321
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<212> DNA <213> Homo sapiens

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<400> 554
acctaataat atqttaacat aaacataaca acacacatat tatttttcta ccccttggca 60
actgaaaatg aagttaccat teetaggeca aatttttaga caaagettte taaaaccate 120
tttataaagt aaattcagat atgcttacaa taaaaagaca taaaagattc atcctqagat 180
gaattetgag teaataacta aaaaccattt etaccagtge atcactacca tgtaatccat 240
totacgcaag ctctacaaat attgagtcaa atcctgtctg tcagaaaatg aagacccaat 300
aagtttgccg aagtattcag t
<210> 555
<211> 322
<212> DNA
<213> Homo sapiens
<400> 555
ctggatcccg agaatactgg aacaatagag ctcgacctta tctcttggct ctqtttctca 60
qtactttqaa qttataacta atctqcctqa aqacttctca tqatqqaaaa tcagccaagg 120
actaagette catagaaata caetttgtat etggacetea aaattatggg aacatttaet 180
taaacggatg atcatagctg aaaataatga tactgtcaat ttgagatagc agaagtttca 240
cacatcaaag taaaagattt gcatatcatt atactaaatg caaatgagtc gcttaaccct 300
tgacaaggtc aaagaaaact tt
<210> 556
<211> 286
<212> DNA
<213> Homo sapiens
<400> 556
aaaaaatatg tatctaagaa tgttctaggg cactctggga acctataaag gcaggtattt 60
cgggccctcc tcttcaggaa tcttcctgaa gacatggccc agtcgaaggc ccaggatggc 120
ttttgctgcg gccccgtggg gtaggagga cagagagaca gggagagtca gcctccacat 180
tcagaggcat cacaagtaat ggcacaattc ttcggatgac tgcagaaaat agtgttttgt 240
agttcaacaa ctcaagacga agcttatttc tgaggataag ctcttt
                                                                   286
<210> 557
<211> 459
<212> DNA
<213> Homo sapiens
<400> 557
acagaagatg aataataatg aaaaactgtg attttttgac tatcacatac attgtgttaa 60
aaaacaggta aatataatga ctattactgt taagaaagac aaggaggaaa actgtttcaa 120
tgttcaggtt taaatactaa qcacaaaaat ataacaaatt ctgtgtctac aataattttt 180
gaagtgtata caagtgcatt gcaaatgagc totttaaaat ttaaagtcca tttccccttt 240
agccaagcat atgtctacat ttatgatttc tttctcttat tttaaagtct cttctggttt 300
agttttttaa aaagtttcat catggctgtc atcttggaat ctagcctcca gctcaaagct 360
gagacttcac gcatacatat tctcctttct gggtgcatct tcacctagtt tctccaagta 420
ttcaqagtta aatagcacaa cttcttttat atgttccct
                                                                   459
<210> 558
<211> 303
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 40, 83, 106, 108, 122, 128, 269
<223> n = A.T.C or G
```

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<400> 558
aaaaaataaa aaacaagaca acaatttagt agaagtaccn ctgggaggga ggggaggga 60
aaaaaqqata tacaqqqqca qqnqtattct ctqtacagaq qtqcananaa aatttcacat 120
anctttanag aatgccttgt ggaaaaaaaa aaataggccc caatacttgt tactgccctt 180
tatcaaaact gtgtgcatga cctgcacaaa taaaatcaca aaacagtgtt gccacattct 240
tcaaggaaac aaagcaaaat ttagggggnt tcttttccct ctccttgtta aaagtcattt 300
                                                                303
ttt
<210> 559
<211> 232
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 212
<223> n = A,T,C or G
<400> 559
aaaqcattta ttaaqaattt actcaqqcat qatqqcccat acttqtaatc ccaqctattq 60
ggaaggatga gatgggagga tggcttgagg ccagaggttt gagaccgacc agccagggca 120
ctaaatagga aagttttgag cttcaagtca gngaggagta aaaaagattt tt
<210> 560
<211> 336
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 15, 16, 290, 300, 305, 324
<223> n = A,T,C or G
<400> 560
ctctgcaaaa ataannataa aaaaataaat aaaattttaa aaataataaa attcactata 60
tacacatata aagaaataaa aagaagtoto agttqcaqot atttqtcaaa attaatatoo 120
atttcttttt atatacggtg aatattgcgc aattatagat ctggattttg aaccacttaa 180
tgaagggga acaccaggtg ttttgaggtg ttggcattct tcgctgattt ggctgttccc 240
aatgtttaca ttatttaatc ttgcaaaaat ggttctgtgc acttggatgn gaaatgctgn 300
ccagnittat tittitatg tigntatect tggatg
<210> 561
<211> 636
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 591
<223> n = A,T,C or G
<400> 561
acattatggg ttttattgct ttcttttatg gtagacctgt taatggggaa aaaatacatc 60
aaatcaaata gaatcttata totgtatgtt aaaatagago acttacotga agtcagtggc 120
ctggatcata gccctggatc atttcccagt ctgtcctgtg ctgtgtgacc ttggacaagg 180
cgcttcatct ctctgggcct ctatttctcc atttgtaaaa caagtggctg cagtagatga 240
tggctgagag cccttcctgt tcccagatgc cttggtccaa agaccccacc cctctgctgg 300
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tectgecaac gtgttggtge tataagetge tteagatata aaattggttt atetataatg 360
tttgttcatt taatagcttc taaaaggcct ttttgttata cagtgctttt tttctagttt 420
tatggacttg gttactgtaa taatgtcttg tttttagcca tgtaactaca aacagatatt 480
ctcttgatgt cttagtaaat ttgcatttga tatatcattg atgagatttt gttgttatgt 540
aatattettt ggetaegeat etgteeagea tettattaae cataataetg ngateattat 600
ttggaaatat gtcctatgga aagaataaaa gcatgt
<210> 562
<211> 708
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 662, 694, 697
<223> n = A,T,C or G
<400> 562
acagtccacc ttttgataca tgccatgcct ttgatcaaag aacaggacat aaaaacaaag 60
tcacaatgac attccatagt aaatttggaa tcagaactcc aaatgcaact tcgggctcgc 120
tggagaacaa ctaaggggca ccaaaccctc tgaggtttta ctttaaggtt cgctgtatgt 180
ttgccttgga caaaaaggct acctaccacg tgctatccag taatatactt aaataagcca 240
atacttagat ctactgtaag gcagatgcta attataaggc attaagtaag caaatagtgc 300
cctcagctac tgcagaagaa aagtcccact gaggaaaaga aagtcttgtg atttttaaag 360
gcaagttttc aagtgctctc atagttctat cctctaattc cattaaatcc atactaggag 420
cgtcagtgag qgttitcata qctittqqaa atactttqqt ctctqaactg taattagcaa 480
gaagtaaaaa cagaaacgtc aaacgtcaaa tgtttgcttt gttacctgga ggactaaatg 540
tagatgtott tagtatactt tgtatgttot taatattgga agataatttt gtgaatctgt 600
agattttatt ttttcagtct taccttacaa atttcttttc tatgaataat agaggactta 660
engeactetg ceatttgtta atgaaaggaa ggengangat ttagaaag
<210> 563
<211> 290
<212> DNA
<213> Homo sapiens
<400> 563
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ctttccggaa gtcaccagat gtttcggaac taatqtcatc tccaagactc ttcttgtata 120
ctgtataata ggcttgagag atatccttca tttgcctgct tgtcctggta gttaagattt 180
caatcaaggc atcttcgttt gttcccgcgc ccttcatgga tttctttagc tgctttgcat 240
caaagactgc tggtggagtc actagggcca ccatgagatg ctcaaagtgg
<210> 564
<211> 530
<212> DNA
<213> Homo sapiens
<400> 564
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accatacget ccaaaagatg getgtgatag atettgtgaa gcaattactg agcagatcaa 120
gatettiggg aaggaacaet aaagatgtti tqaatgaatt atagteeact ggcattitag 180
tgtatttttt tttcttttta gaaacacaca tttctaaaaa tgtcatgtta cattcctgca 240
tgtccctttt gatagcatta gtggatccat tggatttctt tittctittt gtgagacagc 300
ttttagtett acctgaattt atgtgtgttt ttccgacagt ggttaataat tatattggtg 360
atgtagcagc aattgtgttg gcagggtttt catatattat tagtaattaa cactaactgt 420
tggactgact tgtgtcgata gcgctcacgc aagcatggtt aacgtcccta aaacccgccq 480
gactttctgt aagaagtgtg qcaaqcacca accccataaa gtgacacagt
                                                                  530
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<210> 565
<211> 450
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 19, 20
<223> n = A,T,C or G
<400> 565
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gtgtgttaag tttttcatct gtgcatcaaa tcacaaaaaq aataaataga gctttttcct 120
ttatcagtcc cttgggcaca qcaggtcctg aacaccctgc tctacaatgt tgcatcaaga 180
gttcaaacaa caaaataaaa aatattaaga ggaaatcccc atcctgtgac ttgagtccct 240
taagtotaca ggggctggtg acctotttt gctaatagga aaatcacatt actacaaaat 300
ggggagaaaa ctqtttqcct gtggtagaca cctqcacqca tagqattqaa qacaqtacaq 360
gctgctgtac agagaagcgc ctctcacatc tgaactgcat actgagcggg caagtcggtt 420
gtaagttcag taaaaccctc tgatgatgcc
<210> 566
<211> 563
<212> DNA
<213> Homo sapiens
<400> 566
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ggggtcacta tggagttcaa aggacagaac tcctqcctgg tgaccggqac aacctqqcca 120
ttcagacccg gggtggccca gaaaagcatg aagtaactgg ctgggtgctg gtatctcctc 180
taagtaagga agatgctgga gaatatgagt gccatgcatc caattcccaa ggacaggctt 240
cagcatcagc aaaaattaca qtqqttqatq ccttacatqa aataccagtq aaaaaaqqtq 300
aaggtqccqa gctataaacc tccagaatat tattagtctg catggttaaa agtagtcatg 360
taqttatatt cactggtttt acacagagaa atacaaaata aagatcacac atcaagacta 480
tctacaaaaa tttattatat atttacagaa gaaaagcatg catatcatta aacaaataaa 540
atactttta tcacaaaaaa aaa
<210> 567
<211> 424
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 159, 229, 263, 307
<223> n = A,T,C or G
<400> 567
ccaqtqaqca aattgaaaac caactgaaag caaatccaaa tgaggaagat tttaataaag 60
gaataccctt ctccatagca ggtgcaatgc tgactgctca aggcgtgcgt gcgcgcgcac 120
acacacacac acacacacac atacatactc tcacacacnc atctttccaa ttaaactgca 180
ggtagaatga gattttgtgt tattcaaaaa atttgtaagt gatcaaaanc actqctatgg 240
aatgootgtt tatotgoott tgntotggtt aaaatotoat aaaaatacat toaacaggaa 300
aacatanatt gtatgtgtat aaatatatat gtatatatat atattatata cacatgcaca 360
caaatacttt tgttttttga agcataagat agttacataa atactcctat aattgctaaa 420
gttt
                                                                424
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<210> 568
<211> 392
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 239, 260, 294, 316, 384
<223> n = A,T,C or G
<400> 568
actggctcac tcagagagga cgtccttcaa ctatgccatg aaggaggctg ctgcagggc 60
tttgaagaag aaaggatggg aggtggtgga gtcggacctc tatgccatga acttcaatcc 120
catcatttcc agaaaggaca tcacaggtaa actgaaggac cctgcgaact ttcagtatcc 180
tgccgagtct gttctggctt ataaagaagg ccatctgagc ccagatattq tgggttganc 240
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tgggaagtcc ctgccntttt gaaagctggt ttgaagcgaa tgttcatagg aaagtttgct 360
taccacttac cctqcccatq qtanqacaaa aq
                                                                  392
<210> 569
<211> 559
<212> DNA
<213> Homo sapiens
<400> 569
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caaccatcat cttccacagt caagtcacaa tgtcaaatat ttttcttgcc tctgcagatg 120
aaaagttcag atcttatacc caactactta ctcaccccga atatttaagt cagtcttcct 180
gaaaqtactc agggtagcaa gtaacaaaat gcaaacgatt atataaagaa agtgcagtta 240
aaaaggaaac tatgtggcaa gtaccctctt tcccttccca cccccaatt aaaggcaaac 300
aatggcactt tgctcttgct taacctagat tgtcttcaaa aactattaaa atgtaaaaga 360
cttaacaaaa aaacaaaaag acgtttaaca gatgtcaaaa agctccttag tgtttgaaaa 420
taaatqctta aacaaaaqac aacatatttt atatcaaaca aqtttqaaqa qccctqaatt 480
gcagcattct gtaacataaa caaacaaaaa gctggtataq gatttattqq caaaqqcaqa 540
atttcttcaa gcagggtaa
<210> 570
<211> 368
<212> DNA
<213> Homo sapiens
<400> 570
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tgggtatggc tgtgagctca gacacttgca gatctcttaa gtatccttac gttgcagtga 120
tgctaaaagt ggcagatcat tcaggccaaq taaaqaccaa gtgctttgaa atgacgattc 180
cacagtttca gaatttctac agacagttca aggaaattgc tgcagttatt gaaacggtgt 240
gaagacggat totttggttg ataaattgct atcattctaa agtcatggac ttcactttcg 300
gcaacaaaac taaataagga tggaacattt attgaatgaa aaatgcactt ttgtttttcc 360
atttttt
                                                                  368
<210> 571
<211> 261
<212> DNA
<213> Homo sapiens
<400> 571
acacgattgc tgcttccgct atatttgtga tataggaatt aagaggatac acacgtttgt 60
ttcttcgtgc ctgttttatg tgcacacatt aggcattgag acttcaagct tttcttttt 120
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tgtccacgta tctttgggtc tttgataaag aaaagaatcc ctgttcattg taagcacttt 180
tacggggctg qtggggaggq gtqctctqct qqtcttcaat taccaaqaat tctccaaaac 240
aattttctgc aggatgattg t
                                                                   261
<210> 572
<211> 488
<212> DNA
<213> Homo sapiens
<400> 572
ctctcagctc tcggcgcacg gcccagcttc cttcaaaatg tctactgttc acgaaatcct 60
gtgcaagctc agcttggagg gtgatcactc tacaccccca agtgcatatg ggtctgtcaa 120
agoctatact aactttgatg ctgagcggga tgctttgaac attgaaacag ccatcaagac 180
caaaggtgtg gatgaggtca ccattgtcaa cattttgacc aaccgcagca atgcacagag 240
acaggatatt qccttcqcct accaqaqaaq qaccaaaaaq qaacttqcat caqcactqaa 300
gtcagcctta tctggccacc tggagacggt gattttgggc ctattgaaga cacctgctca 360
gtatgacgct tctgagctaa aagcttccat gaaggggctg ggaaccgacg aggactctct 420
cattgagatc atctgctcca gaaccaacca ggagctgcag gaaattaaca gagtctacaa 480
ggaaatgt
                                                                   488
<210> 573
<211> 619
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 21
<223> n = A,T,C or G
<400> 573
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quattquaac cccaquagat aactacaaca aaaacatgtt aattttttt taaaaatgat 120
gattcaaagg cagatttgaa gggaagtaat atttaggtgg cagaagaagg caaatgcagc 180
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agtectagat gettetggta tgtaaatate ttgaateaca ttgttteett tettetgaaa 420
tctcaaagga gaattctcac agcactacat taaggttqcc attttqttag qattcaaaat 480
ttcaatccag tagccatcag gatcttgaat aaatgccagg cctttcattt taccatcatc 540
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<212> DNA
<213> Homo sapiens
<400> 574
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cgtggaagaa gttcaaggac ctggagtaqt tqqtqaattt ccaatcatca qcccaqqtcq 180
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<210> 575
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<212> DNA
<213> Homo sapiens
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gtgtgaatta taaagaaaag catgagaatg actctaagtt caacaaacat gggtgaatct 180
ctatgtgctc ccagtgtcct ggatgggctc cccagcaagc cattcctcct tcctgttctg 240
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gctttgcctt t
<210> 576
<211> 134
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 34, 83, 98
<223> n = A.T.C or G
<400> 576
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cttcaaaagt cgct
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<210> 577
<211> 488
<212> DNA
<213> Homo sapiens
<400> 577
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cacatggccc ctcccctgc caggagettt ggacctaatc caagcatece tttgcccaga 180
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aattettetg aacteaaact gaggaattte acctgtaaac etgagtegta cagaaagetg 300
cctggtatat ccaaaagctt tttattcctc ctgctcatat tgtgattctg cctttgggga 360
cttttcttaa accttcagtt atgatttttt tttcatacac ttattggaac tctgcttgat 420
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ttgcattt
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<210> 578
<211> 476
<212> DNA
<213> Homo sapiens
<400> 578
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catcaacttg cagaaagaaa tataaatgac atttcaagga tagaagtata cctgattttt 180
ttccttttaa ttttcctggt qccaatttca aqttccaaqt tqctaataca qcaacaattt 240
atgaattgaa ttatcttggt tgaaaataaa aagatcactt tctcagtttt cataagtatt 300
atgtototto tgaqctattt catctatttt tggcagtotg aatttttaaa acccatttaa 360
attittttcc ttaccttttt attigcatgt ggatcaacca tcgctttatt ggctgagata 420
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<210> 579
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<212> DNA
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tggtttgatt ctgattccct aattctggcc actgcaggtg atgagtaagg gtggggatca 180
gggaggaagt ccagaagcca gtctttgtct ccctttcctg cttatattta agtgcctatt 240
tacatq
<210> 580
<211> 615
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 59, 69, 83, 103, 587
<223> n = A,T,C or G
<400> 580
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ccaggtgtgg tcctctagac actggctccg attgctgccc ttgaggatgt agtggtcatt 180
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caccagcaca ggatcaggac agtggcccaa gcggcactca gtagtggtgt tatcccactc 300
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gtaagtcccc agaatctgtc cttccacctc ctttgcgaca aatatgctat tgtccactgg 420
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cgcacaccaa aaaaacatct ggtgatcaaa gtcctctccc caggctggaa ttcacccagc 540
tcagacacct tacctgtctc tgtccctcca gagttagggc ttcccancaa ggaactgggc 600
ttaactgact tccaa
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<212> DNA
<213> Homo sapiens
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gagttotggt caaaqaaaga aagtttagaa gotgagacac aaagggttgg gagotgatga 180
aactcacaaa tgatggtagg aagaagctct cgacaatacc cgttggcaag gagtctgcct 240
ccatgctgca gtgttcgagt ggattgtagg tgcaagatgg aaaggattgt aggtgcaagc 300
tgtccagaga aaagagtcct tgttccagcc ctattctgcc actcctgaca gggtgacctt 360
gggtatttgc aatattcctt tgggcctctg cttctctcac ctaaaaaaaa agaattagat 420
tatattggtg qttctcagca agagaaggag tatgtgtcca atgctgcctt cccatgaatc 480
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<210> 582
<211> 939
<212> DNA
<213> Homo sapiens
<400> 582
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cagtgtgccc aggatatgaa ccatgaatac atgtcctggt atcgacaaga cccaggcatg 180
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246

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gctccctccc agacatctgt gtacttctgt gccagcagtt actcagtcgg ggagggcggg 360
gattcacccc tccactttgg gaatgggacc aggctcactg tgacagagga cctgaacaag 420
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cagocogoco toaatgacto cagatactgo otgagoagoo gootgagggt otoggocaco 660
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<211> 828
<212> DNA
<213> Homo sapiens
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aactgcacgt acacagccac aggataccct tcccttttct ggtatgtcca atatcctgga 180
gaaggtotac agotootoot gaaagcoacg aaggotgatg acaagggaag caacaaaggt 240
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<210> 584
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<212> PRT
<213> Homo sapiens
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Arg Thr Arg Gly Asn Ser Val Thr Gln Met Glu Gly Pro Val Thr Leu
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Ser Glu Glu Ala Phe Leu Thr Ile Asn Cys Thr Tyr Thr Ala Thr Gly
Tyr Pro Ser Leu Phe Trp Tyr Val Gln Tyr Pro Gly Glu Gly Leu Gln
Leu Leu Leu Lys Ala Thr Lys Ala Asp Asp Lys Gly Ser Asn Lys Gly
 65
                     70
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Phe Glu Ala Thr Tyr Arg Lys Glu Thr Thr Ser Phe His Leu Glu Lys

247

85 90 95 Gly Ser Val Gln Val Ser Asp Ser Ala Val Tyr Phe Cys Ala Pro Asn Pro Ser Leu Gln Gly Gly Ser Glu Lys Leu Val Phe Gly Lys Gly Thr 120 Lys Leu Thr Val Asn Pro Tyr Ile Gln Asn Pro Asp Pro Ala Val Tyr Gln Leu Arg Asp Ser Lys Ser Ser Asp Lys Ser Val Cys Leu Phe Thr 150 Asp Phe Asp Ser Gln Thr Asn Val Ser Gln Ser Lys Asp Ser Asp Val Tyr Ile Thr Asp Lys Thr Val Leu Asp Met Arg Ser Met Asp Phe Lys Ser Asn Ser Ala Val Ala Trp Ser Asn Lys Ser Asp Phe Ala Cys Ala Asn Ala Phe Asn Asn Ser Ile Ile Pro Glu Asp Thr Phe Phe Pro Ser Pro Glu Ser Ser Cys Asp Val Lys Leu Val Glu Lys Ser Phe Glu Thr 230 235 Asp Thr Asn Leu Asn Phe Gln Asn Leu Ser Val Ile Gly Phe Arg Ile Leu Leu Leu Lys Val Ala Gly Phe Asn Leu Leu Met Thr Leu Arg Leu 260 265 270 Trp Ser Ser 275 <210> 585 <211> 312 <212> PRT <213> Homo sapiens <400> 585 Met Ser Ile Gly Leu Leu Cys Cys Ala Ala Leu Ser Leu Leu Trp Ala Gly Pro Val Asn Ala Gly Val Thr Gln Thr Pro Lys Phe Gln Val Leu Lys Thr Gly Gln Ser Met Thr Leu Gln Cys Ala Gln Asp Met Asn His 35 Glu Tyr Met Ser Trp Tyr Arg Gln Asp Pro Gly Met Gly Leu Arg Leu 55 .

Ile His Tyr Ser Val Gly Ala Gly Ile Thr Asp Gln Gly Glu Val Pro

248

65 70 75 80 Asn Gly Tyr Asn Val Ser Arg Ser Thr Thr Glu Asp Phe Pro Leu Arg Leu Leu Ser Ala Ala Pro Ser Gln Thr Ser Val Tyr Phe Cys Ala Ser Ser Tyr Ser Val Gly Glu Gly Gly Asp Ser Pro Leu His Phe Gly Asn Gly Thr Arg Leu Thr Val Thr Glu Asp Leu Asn Lys Val Phe Pro Pro 135 Glu Val Ala Val Phe Glu Pro Ser Glu Ala Glu Ile Ser His Thr Gln 155 Lys Ala Thr Leu Val Cys Leu Ala Thr Gly Phe Phe Pro Asp His Val 165 170 Glu Leu Ser Trp Trp Val Asn Gly Lys Glu Val His Ser Gly Val Ser Thr Asp Pro Gln Pro Leu Lys Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr Cys Leu Ser Ser Arg Leu Arg Val Ser Ala Thr Phe Trp Gln Asn 215 Pro Arg Asn His Phe Arg Cys Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp Glu Trp Thr Gln Asp Arg Ala Lys Pro Val Thr Gln Ile Val 245 Ser Ala Glu Ala Trp Gly Arg Ala Asp Cys Gly Phe Thr Ser Val Ser Tyr Gln Gln Gly Val Leu Ser Ala Thr Ile Leu Tyr Glu Ile Leu Leu Gly Lys Ala Thr Leu Tyr Ala Val Leu Val Ser Ala Leu Val Leu Met Ala Met Val Lys Arg Lys Asp Phe

<210> 586

<211> 97

<212> PRT

<213> Homo sapiens

<400> 586

Glu Val Glu Val Ser Arg Asp His Ala Ser Leu Gly Asp Ser Glu Thr

Leu Ser Gln Thr Glu Leu Arg Lys Lys Glu Arg Lys Lys Lys Arg Glu $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Arg Lys Phe Gln Ala Asn Cys Gly Ile Asp Phe Ile Ile Phe Trp Ile $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Phe Trp Ile Leu Leu Phe Ser His His Trp Ile Gln Glu Ser Leu Leu 50 60

Cys Pro Pro Ser Pro Lys Glu Val Thr Cys Arg Glu Met Leu Thr Gly 65 70 75 80

Gly Cys Leu Pro Trp Ala Thr Arg Ser His Leu Gly Arg Arg Lys Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ser

<210> 587

<211> 16 <212> PRT

<213> Homo sapiens

<400> 587

Phe Gln Ala Asn Cys Gly Ile Asp Phe Ile Ile Phe Trp Ile Phe Trp 1 5 10 15

<210> 588

<211> 530 <212> DNA

<213> Homo sapiens

<400> 588

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gdtgagagac tyctgctgag gaatgctgc ctcgtcotgg acctcaggc coggetgcgg 180
gagacgtggg coctggccg ggatgctgc ctcgtcotgg accagetgcg agcctytca 240
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gocgtcoccc cagctyactc caaggctgc caaggctcc tycagagccat tycgtcagtg 240
gagctctogg gagccctgag gaacgttgc cgtagagtg ggcaagcac tycgtgatgt 240
accagagcc tggagaagt gcaggtgt cacctggaag agttggcgga gacctagcct 480
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<210> 589

<211> 349 <212> DNA

<213> Homo sapiens

<400> 589

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<211> 509
<212> DNA
<213> Homo sapiens
<400> 590
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tttcgtcgct tgccggctgt ctgatgaaga gcagcgagaa tggcgcgctt ccagtggtgt 180
ctgtagtgag agaaacagag tcccagttac tgccagatgt gggagctatt gtaacctqta 240
aggtototag catcaattoa cgotttgoca aagtacacat cotgtatgtg gggtocatgc 300
ctcttaagaa ctcttttcga ggaactatcc gcaaggaaga tgtccgagca actgaaaaaa 360
acaaggttga aatttataag agtttccgcc caggtgacat tgtcttggcc aaagtgatct 420
ccttaggtga tgcacagtcc aactacctgc taaccaccgc cgagaacgag ctgggagtgg 480
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<211> 510
<212> DNA
<213> Homo sapiens
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<211> 432
<212> DNA
<213> Homo sapiens
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gcatcagtgt ctgtggacgt agtctctgaa gagtgcttca gctgatgggg aaggagaaac 180
tcaagacaga gatcctccta gggatggcgt cactttcctg ccaactttct cqttqcctct 240
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<211> 614
<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
<400> 594
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cettgtagac accegggee ttegtgagaa eggtgeagge etggggtagt etcetgtetg 180
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<211> 487
<212> DNA
<213> Homo sapiens
<400> 595
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<211> 418
<212> DNA
<213> Homo sapiens
<400> 596
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<211> 418
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 205
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cacatgcctt gtcagcaacc agaagcccaa acacggatga agcttgagga cccctgagaa 360
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<210> 598
<211> 266
<212> DNA
<213> Homo sapiens
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ccaaagacac agggccagtg aggagttgtg caggtttgcc ctggcattaa aataataaac 180
attgaaattc agtcgattcc cctatggact cagttataga tctcatcagt tgaaggaaga 240
gagatgcctt ttcctattca accttt
<210> 599
<211> 235
<212> DNA
<213> Homo sapiens
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WO 02/092001 PCT/US02/14975

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WO 02/092001 PCT/US02/14975

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PCT/US02/14975 261

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WO 02/092001 PCT/US02/14975 266

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<213> Homo sapiens

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<211> 528
<212> DNA
<213> Homo sapiens
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caatggggaa ctaacactta gatgcatggg cagttaggga catgcaaqaa tctttgtaat 180
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cacagtgact ggggcccggg taatggtgca cgggcaggat gaacctgcct ttatggatga 480
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<210> 678
<211> 528
<212> DNA
<213> Homo sapiens
<400> 678
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tgtgattttc agaaccacgt cagatatacc aagtgactgt gtgtggggtt tgacaactgt 180
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caacttattt gtaagaagga tttttaaatt ttttatgggt agaattgtag tcaggaaaac 420
agaaagggct tgaaatttaa taagtgctgc tggaagggga ttttccaagc ctggaagggt 480
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PCT/HS02/14975

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<212> DNA
<213> Homo sapiens
<400> 679
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atggcctcaa tatgtgccgc cagtgtttcc gtcagtacgc gaaggatatc ggtttcatta 180
agttggacta aatgctcttc cttcagagga ttatccgggg catctactca atgaaaaacc 240
aaactcgag
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<210> 680
<211> 366
<212> DNA
<213> Homo sapiens
<400> 680
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tggggc
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<210> 681
<211> 495
<212> DNA
<213> Homo sapiens
<400> 681
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tccgatcgtg agaacatcct gggcacaccc aaactgagag acaccataca aagtgactgg 420
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<210> 682
<211> 529
<212> DNA
<213> Homo sapiens
<400> 682
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accgcagtga ccggttctac agcacccggt gctgcggctg ttgccatgtc cgcaccggga 180
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attactattc gtctgagaga atggctgata atgcctgtgt tctttttgcc gctctgttct 360
tatgtttata atcagttcaa tgctggttta tggagcaatt tcttatcaag tgggttggct 420
gattccattc ttctgttacc gactttttga cttcgtcctc agttgcctgg ttgctattag 480
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<211> 527
<212> DNA
<213> Homo sapiens
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tttgggaatg qatqatqaag qaqatqatqa cccaqttcct ctaccaaatg tgaatqcagc 180
aatattaaaa aaggtcatto agtggtgcac ccaccacaag gatgaccctc ctcctcctga 240
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gtttgcttga tgtacatgca agactgttgc caatatgatc aaggggaaaa ctcctgagga 420
gattogcaag accttcaata tcaaaaatga ctttctgaag aggaggaacc cagtcgcaaa 480
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<210> 684
<211> 441
<212> DNA
<213> Homo sapiens
<400> 684
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aactggctga ggacaaggcc aggcagcctg gccacactgc ggaagggcag ctggacgcgc 240
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cccactette agecegtaag eceggeagge etettteage atgggeacag tgaacttgee 360
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<210> 685
<211> 490
<212> DNA
<213> Homo sapiens
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ggctataatg atggatatgg ctttgggtct gatagatttq gaagaqacct caattactgt 180
ttttcaggaa tgtctgatca tagatacgga gatggtgggt ccagtttcca gagcaccaca 240
gggcactgtg tacacatgag ggggttacct tacagagcca ctgagaatga tatttataat 300
ttottotoac otottaatoo catgagagta catattgaaa ttggaccoga tggcagagtt 360
accggtgagg cagatgttga atttgctact catgaagatg ctgtggcagc tatggcaaaa 420
gacaaagcta atatgcacac agatatgtgg agctcttctt aaattctctg caggaacaag 480
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<210> 686
<211> 618
<212> DNA
<213> Homo sapiens
<400> 686
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ttaatgttac gccatatttg tttcaaatat ttttgtaata ttgaacatta tggatagagt 180
taaagettgt ttgtateeat ecceptegttt acatteteea teecetacat aggtaaceae 240
tattctqaaq ttqatqtqta ttctttqtqt acatqctttt ataccttttc tqcatatqta 300
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tactcttaca tgtattctgc agcttgcatt tttcacacat tcattttqaa tattcqttca 420
tgttaacaat gtagatctag ttttctttt aaactctgta tagtattctt atgtatgaca 480
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<210> 687
<211> 410
<212> DNA
<213> Homo sapiens
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<221> misc_feature
<222> 396
<223> n = A.T.C or G
<400> 687
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aaggtgaagg gtgtccgtgg gcagtgcgat cgcaggagac atgaaacagc agccacggaa 120
atagggggta aaatatttgg agtacctttt aatgcactgc cccattctgc tgtaccagaa 180
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<210> 688
<211> 412
<212> DNA
<213> Homo sapiens
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cttccgcgga ggtttcggca gtggcatccg gggccgqqgt cgcqgccqtq qacqqqccq 120
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tgaggttttg aagattatgc cagtgcagaa qcaqacccgt qccqqccaqc qcaccaqqtt 360
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<210> 689
<211> 412
<212> DNA
<213> Homo sapiens
<400> 689
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ccgaggaagg tgaaagttac acaagaactg aaaaacattc aagttgagca gatgacaaaa 120
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<210> 690
<211> 412
<212> DNA
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<213> Homo sapiens
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<210> 691
<211> 412
<212> DNA
<213> Homo sapiens
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<210> 692
<211> 412
<212> DNA
<213> Homo sapiens
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aggaaggcat tecteetgae cageagaggt tgatetttge eggaaageag et
<210> 693
<211> 413
<212> DNA
<213> Homo sapiens
<400> 693
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ccctttcctt cactcaaggg ccatttcccc agtccctatc tcccccatcc cctcccqct 120
tataggcccc acaggtgcta tttgttgtgc tggcccaggc gtggggctac caagcaaagg 180
cttggcatat accaaaqqcc aagctgcatg cccattaatc tqqqcttttt tcttttqcqq 240
gtcaatgtgg gttttaatgc tgaatcaaat gtttaacttt tccaagactt gggggaatct 300
gaagttocca totacactto tacccacttt tootgoccaa cotaaacctt ogtttaagta 360
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<210> 694 <211> 441 <212> DNA <213> Homo sapiens

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<223> n = A,T,C or G
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egectteace geactegace annaceaeag nggegaggte tecaagteee ageteanggt 240
cctttcccat aacctgtgca cggtgctgaa ggttcctcgt gacccanttg cccttgaaga 300
gcacttcagg gatgatgatg agggtccagt gtccaaccag ggctacatgc cttatttaaa 360
caggiticatt tiggaaaagg tocaagacaa cittgacaag attgaattca ataggatgig 420
ttgggaccct ctgtgtcaaa a
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<210> 695
<211> 413
<212> DNA
<213> Homo sapiens
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gccgaaacca atcaacgtaa gagtaactac aatggatgct gagctggaat ttgccattca 240
gcccaataca actggcaaac aactttttga ccaggtggtg aaaacagttg gtttgcgtga 300
ggtctggttt tttgggctgc agtatgtaga cagcaaaggt tattctacat ggcttaaact 360
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<210> 696
<211> 399
<212> DNA
<213> Homo sapiens
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<210> 697
<211> 398
<212> DNA
<213> Homo sapiens
<400> 697
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ttgaaaaccg ggccttaaaa gatgaagaaa agatggaact ccaggaaatc caactcaaag 360
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<210> 698

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<211> 396
<212> DNA
<213> Homo sapiens
<400> 698
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tgaaaataca caattttact agcaaatgcc tctactgtaa tcgctattta cccacagata 180
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<210> 699
<211> 398
<212> DNA
<213> Homo sapiens
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<210> 700
<211> 399
<212> DNA
<213> Homo sapiens
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teegeateta eageatgagg ttetgeeegt ttgetgagag gaegegteta gteetgaagg 180
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<210> 701
<211> 399
<212> DNA
<213> Homo sapiens
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tcagtatctt aatgaaggac ttggcagatg aacttgctct tgttgatgtc atcgaagaca 240
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ttgtctctgg caaagactat aatgtaactg caaactccaa gctggtcatt atcacggctg 360
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<210> 702
<211> 398
<212> DNA
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<213> Homo sapiens
<400> 702
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ccggcgctgt ccagaccgag gccatgaagc agattctcqq ggtgatcqac aagaaacttc 180
ggaacctgga gaagaaaaag ggtaagcttg atgattacca ggaacgaatg aacaaagggg 240
aaaggettaa teaagateag etggatgeeg tttetaagta eeaggaagte acaaataatt 300
tggagtttgc aaaagaatta cagaggagtt tcatggcact aagtcaagat attcagaaaa 360
caataaagaa gacagcacgt cqqqaqcagc ttatqaga
<210> 703
<211> 403
<212> DNA
<213> Homo sapiens
<400> 703
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ttacttgctt tatgatqaca aaggtgttgg tctgggagaa qcattagtqa aatttaaatc 120
agaagaacag gccatqaaag ctgaacgttt aaaccgacga agattcctag ggacagaggt 180
gttattaaga cttatatctg aggcacaaat acaggagttt ggtgtaaatt tttctgtgat 240
gtccagtgaa aaaatgcaag ctcgctcaca gtcacgtgag cgaggtgacc attcccattt 300
atttgactca aaagacccac caatatactc agttggtgct tttgaaaact ttagacatca 360
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<210> 704
<211> 411
<212> DNA
<213> Homo sapiens
<400> 704
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322

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